

<110> Rosen et al.

<120> 28 Human Secreted Proteins

<130> PZ003P3

<140> Unassigned

<141> 2001-05-11

<150> 60/265,583

<151> 2001-02-02

<150> 09/152,060

<151> 1998-09-11

<150> PCT/US98/04858

<151> 1998-03-12

<150> 60/040,762

<151> 1997-03-14

<150> 60/040,710

<151> 1997-03-14

<150> 60/050,934

<151> 1997-05-30

<150> 60/048,100

<151> 1997-05-30

<150> 60/048,357

<151> 1997-05-30

<150> 60/048,189

<151> 1997-05-30

<150> 60/057,765

<151> 1997-09-05

<150> 60/048,970

<151> 1997-06-06

<150> 60/068,368

<151> 1997-12-19

<160> 118

<170> PatentIn Ver. 2.0

<210> 1

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1

gggatccgga	gccc aaatct	tctgacaaaa	ctcacacatg	cccaccgtgc	ccagcacctg	60
aattcgaggg	tgacccgtca	gtcttctctt	tccccccaaa	acccaaggac	accctcatga	120
tctcccggac	tcctgaggtc	acatgcgtgg	tggtggacgt	aagccacgaa	gaccctgagg	180
tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	aagccgcggg	240
aggagcagta	caacagcacg	taccgtgtgg	tcagcgtcct	caccgtcctg	caccaggact	300
ggctgaatgg	caaggagtac	aagtgcaagg	tctccaacaa	agccctccca	acccccatcg	360
agaaaaccat	ctccaaagcc	aaagggcagc	cccgagaacc	acaggtgtac	accctgcccc	420
catcccggga	tgagctgacc	aagaaccagg	tcagcctgac	ctgcctgggtc	aaaggcttct	480
atccaagcga	catcgccgtg	gagtggggaga	gcaatgggca	gccggagaaac	aactacaaga	540
ccacgcctcc	cgtgctggac	tccgacggct	ccttcttctt	ctacagcaag	ctcaccgtgg	600
acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	gaggctctgc	660
acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaatgagtg	cgacggccgc	720
gactctagag	gat					733

<210> 2

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> Site

<222> (3)

<223> Xaa equals any of the twenty naturally occurring L-amino acids

<400> 2

Trp Ser Xaa Trp Ser

1

5

<210> 3

<211> 86

<212> DNA

<213> Homo sapiens

<400> 3

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60

cccgaatat ctgccatctc aattagg 86

<210> 4

<211> 27

<212> DNA

<213> Homo sapiens

<400> 4

gcggcaagct ttttgcaaag cctaggc 27

<210> 5

<211> 271

<212> DNA

<213> Homo sapiens

<400> 5

ctcgagattt cccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60

aaatatctgc catctcaatt agtcagcaac catagtcccc cccctaactc cgcccatccc 120

gccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa ttttttttat 180

ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240

ttttggaggc ctaggctttt gcaaaaagct t

271

<210> 6
<211> 32
<212> DNA
<213> Homo sapiens

<400> 6
gcgctcgagg gatgacagcg atagaacccc gg

32

<210> 7
<211> 31
<212> DNA
<213> Homo sapiens

<400> 7
gcgaagcttc gcgactcccc ggatccgct c

31

<210> 8
<211> 12
<212> DNA
<213> Homo sapiens

<400> 8
ggggactttc cc

12

<210> 9
<211> 73
<212> DNA
<213> Homo sapiens

<400> 9
gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg
ccatctcaat tag

60

73

<210> 10
<211> 256
<212> DNA
<213> Homo sapiens

<400> 10
ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct
caattagtca gcaaccatag tcccggccct aactccgccc atcccggccc taactccgcc
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
cttttgcaaa aagctt

60

120

180

240

256

<210> 11
<211> 2084
<212> DNA
<213> Homo sapiens

<220>

<221> SITE

<222> (839)

<223> n equals a,t,g, or c

<400> 11

ctatcagatg	ctgggcctcc	tcagccatag	ccccctgctc	ctacccccctg	actggctctt	60
gtgtcctcac	ctctcaccct	ctccttcctg	ggaggccctg	ggagggtgatc	attgacaccc	120
agccaagcag	acagctgcgg	gtgccccagc	ccttgctggg	cctgcgcgtg	aggagtccca	180
ctgcttctaa	aggaagtcct	gggcaggagg	tggctttggt	ggttggttcc	aaagttgaaa	240
atgcttgag	tttgacctta	gaagaagtgg	gaagaagaag	gagctctaca	gggtcagctt	300
tgtttgattt	gtccagtcta	agaagtccca	ttgccaaagc	tttctgcagg	agggtgaatg	360
ccgcagcttg	gcagccccctg	ggttttctctt	ggaaatgggtc	agtttcccct	caaagtaccc	420
aaagtagcct	tggcttgagt	ttttgtcctt	gcctcctttt	tagagaagag	ggcatttaga	480
ctgcattttc	ctggttaaag	aagggttaaag	caaagtgtta	ttgccttttc	tagtgaacta	540
actcgtagag	atgtttctcag	caggaagaca	gtcttagcac	tgtcacttag	cagattgcac	600
ttaagtccct	tgtgctggcc	agatggcgtg	gctgggtgcc	ttaatatgtc	ccaggacccc	660
tgacagggct	gcctggcctc	tccctcgtgc	tcctcaagag	cccagtcctat	acactgtgga	720
tgtcattgct	gtcgggttag	gaagtcttgt	cctagaacgc	cctggctggg	atgaccacag	780
ttcatggcgg	ctcttctcgc	ttgggtcagt	gtcatcttcc	agcacctgct	gtgctgggna	840
aggccgagga	tgggggcccc	gcactgtcca	ggcctgctgg	ggcctggctg	ggagtccctgt	900
gggcagcatg	gaacatgcag	ctgggcttcc	tgtgaccagg	cacctctggg	caactgtgct	960
tgccctgtgc	cctggacctt	ttcctgccct	tctccttctc	ctgctccctt	ggggctaccc	1020
cttggccctc	cctggtctgt	gcaaaactccc	tcaggagacc	cccctgccct	gtagctctcr	1080
cttaacttcc	taggggctgc	tgagcccacc	cagaggttgt	tggagttcag	cggggcagct	1140
tgtctccctt	gtcagcaggg	gcgtaagggc	tgggtttggc	catacaaggt	tggctacgcc	1200
ctcaatccct	gaccgttcca	ggcactgagc	tgggcaccca	cgggaaggaca	tgctgtccag	1260
actgtgatga	ctgccagcac	agggcatctc	gggcttggtc	ggtctgcgag	gccttgcccc	1320
tgtggaactc	tgggttcctg	ttttctcagt	cttttttgcg	gctttgctgt	ggttggcagc	1380
tgccgtactc	caggcttggtg	tcggccactc	agatgagggc	tgtggtgcga	gccagtgcag	1440
gagagctgcg	cttgggattg	tgccctctcc	tgtgtctgtc	ctccggacct	accaggtctc	1500
ccaccatcag	gacctgtct	ttgggtttag	aagaccaagt	atggggaaaa	ccaggcacca	1560
gcctctgcag	caatgggtcc	ctctagcctg	tggacaccag	ctgggggatc	cagggtcagg	1620
ccccctcctc	tccccagttt	ccctctgctg	tgggttctgg	gctgtcatgt	ctccaccact	1680
taaggatgtc	tttacctga	cttcaggata	gatgctggga	tgcctgggca	tggccacatg	1740
ttacatgtac	agaactttgt	ctacagcaca	aattaagtta	tataaacaca	gtgactggta	1800
tttaatgctg	atctactata	aggtattcta	tatttatatg	acttcagaga	cgcgtatgta	1860
ataaaggcac	ccctccctcc	agtgtccaca	tccagttcac	cccagagggt	cgggcagggt	1920
gacatattta	tttttgtcta	ttctgtaggc	ttccatgtcc	agaatcctgc	ttaagggtttt	1980
agggtacctt	cagtactttt	tgcaataaaa	gtatttccta	tccaaaaaaa	aaaaaaaaaa	2040
actcgagggg	gggcccggta	cccaattcgc	ccctataaag	agtc		2084

<210> 12

<211> 1586

<212> DNA

<213> Homo sapiens

<400> 12

aattcggcac	caggagaagt	ggagtttggg	agttcagggg	cacagggggca	caggccccacg	60
actgcagcgg	gatggaccag	tactgcatcc	tgggcgcgat	cggggagggc	gcccamggca	120
tcgtcttcaa	ggccaagcac	gtggagactg	gcgagatagt	tgccctcaag	aagggtggccc	180
taaggcgggt	ggaagacggc	ttccctaacc	aggccctgcg	ggagattaag	gctctgcagg	240
aratggagga	caatcagtat	gtggtacaac	tgaaggctgt	gttcccacac	ggtggagggt	300
ttgtgctggc	ctttgagttc	atgctgtcgg	atctggccga	ggtggtgcgc	catgcccaga	360
ggccactagc	ccaggcacag	gtcaagagct	acctgcagat	gctgctcaag	ggtgtcgcc	420
tctgccatgc	caacaacatt	gtacatcggg	acctgaaacc	tgccaacctg	ctcatcagcg	480
cctcaggcca	gctcaagata	gcggactttg	gcctggctcg	agtcttttcc	ccagacggca	540

```

gccgcctcta cacacaccag gtggccacca ggagctcact gagctgccgg actacaacaa      600
gatctccttt aaggagcagg tgcccatgcc cctggaggak gtgctgcctg acgtctctcc      660
ccaggcattg gatctgctgg gtcaattcct tctctaccct cctcaccagc gcatcgcagc      720
ttccaaggct ctctccatc agtacttctt cacagctccc ctgcctgccc atccatctga      780
gctgccgatt cctcagcgtc tagggggacc tgccccaag gcccatccag ggccccccca      840
catccatgac ttccacgtgg accggcctct tgaggartcg ctgttgaacc cararctgat      900
tcggcccttc atcctggarg ggtgagaagt tggccctggt cccgtctgcc tgctcctcag      960
gaccactcag tccacctggt cctctgccac ctgcctgggt tcacctcca aggcctcccc     1020
atggccacag tgggcccaca ccacaccctg ccccttagcc cttgcgaagg ttggtctcga     1080
rgcagargtc atgttcccag ccaagagtat gagaacatcc agtcgagcag aggagattca     1140
tggcctgtsc tcggtgagcc ttacctttct tgtgcttcac atcactgagc actcatttag     1200
aagtgaggga gacagaagtc tagscccagg gatggctcca gttggggatc cagcaggaga     1260
ccctctgcac atgaggctgg tttmccaaca tctactccct caggatgagc gtgagccaga     1320
agcagctgtg tatttaagga aacaagcgtt cctggaatta atttataaat ttaataaatc     1380
ccaatataat cccagctagt gcttttttct tattataatt tgataagggt attataaaaag     1440
atacatggaa ggaagtggaa ccagatgcag aagaggaaat gatggaagga cttatggtat     1500
cagataccaa tatttaaaaag tttgtataat aataaagagt atgattgtgg ttcaaggata     1560
aaaaaaaaaa aaaaaaaaaa actcga                                     1586

```

```

<210> 13
<211> 689
<212> DNA
<213> Homo sapiens

```

```

<400> 13
atggaagcta agtttggcct gctttgcttt ttagtctcca caccatgggc agaactgctg      60
tctttactac ttcatctcac ccaagtcctc tcccaggca gccagggcct gggtttgaat     120
aattgcaggg cagcctgcca tgatctttct cacttactcc tctccattc agcaatcaac     180
cagactaagg agttttgatc cctagtgtat acagccctga agaaaattaa atctgaatta     240
attttacatg gccttcgtga tctttctgct gttcttactt tttcgaatgt agttgggggg     300
tgaggaggac aggttatggg atttaaagag aataaacatt ttgcacatac atgtattgta     360
caacagtaag atcctctggt aaaaccagct gtctgtttct ccctctccat ttcttcccat     420
gctgtaacct caggctccac cagctgttcc ccagtgtgtg tacctagctt ccctctaccg     480
ttgtctactg accatttcca ctacatgcct ttccctacct cccctcacaa ccaatcaagt     540
gaatacttga ttattatctc ttcttacttg tgctttatct tttttgtttg gattggttct     600
aattaatgaa aataaaaagt tctaaattta catttttata ggggtattgta aataaaaaaca     660
aatgtatact taaaaaaaaa aaaaaaaaaa                                     689

```

```

<210> 14
<211> 1348
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c

```

```

<400> 14
acgaagacac cagacctgtg ggagcctgtg gtgaccaccg aaggncagtt cgggtgcagc      60
agggctcgag cccagaaaac tatcctctaa gaccagacgt gacaaggaga agcagagctg     120
taagagctgt ggtgagacct tcaactccat caccaagagg aggcatact gcaagctgtg     180
tggggcgggc atctgtggga agtgctccga gttcaaggcc gagaacagcc ggcagagcct     240
gtctgcagag attgtttcct gacacagcca gtggcccctg agagcacaga gaagacaccc     300
actgcagacc cccagcccag cctgctctgc ggccccctgc ggctgtyaga gagcgggtgag     360
acctggagcg aggtgtgggc cgccatcccc atgtcagatc cccaggtgct gcacctgcag     420

```

gkaggcgacc	aggacggccg	gctgccccgc	accatccctc	tccccagctg	caaactgagt	480
gtgccggacc	ctgaggagag	gctggactcg	gggcatgtgt	ggaagctgca	gtgggccaaag	540
cagtcctggt	acctgagcgc	ctcctccgca	gagctgcagc	agcagtggct	ggaaacccta	600
agcactgctg	cccatgggga	cacggcccag	gacagcccgg	gggccctgca	gcttcaggtc	660
cctatgggcg	cagtgtcccg	tgagctgagt	ctccactgct	cctgcacacc	accacattgg	720
acctgtgctg	tcctgggagg	tggtgttggg	ggccccatga	agagcgccct	ggacttgctt	780
gaggggtggg	caacagccca	gagytcagga	cattttggctt	tggggggaag	gaaaytgagg	840
cccagagagg	ggcaaccayt	ggccaagggt	caccagcaaa	gttttggyta	agagcctggc	900
ctccagcccc	agcagtktg	cccagagcag	gggcccaytg	ccaaagtaac	catcatccat	960
atgggcccgtg	tggtgatgct	ggcccgggaag	gcagaaagag	gcagcatggg	cactgccagg	1020
gacagccaca	tcctgctggt	ctgcagcgtg	gtccaccccc	cctctgcca	gcctgtctac	1080
accgtgtgag	ctgaatcgtg	acttgcttcc	cacctccttt	ctctgtcctc	tcctgaggtt	1140
ctgcctgcag	ccccaggag	gtgggcctgc	cccatcctag	ctggactcat	ggttcctaaa	1200
taaccacgct	cagaagctct	gctaggactt	accccagcca	ctgagtggca	ggcgcatgag	1260
atttgtggct	gttcctgatg	ctagtggcac	acagtgttta	tctgcataaa	taaacactgg	1320
scaccaaaaa	aaaaaaaaaa	aaaaaaac				1348

<210> 15

<211> 1123

<212> DNA

<213> Homo sapiens

<400> 15

cgcgcccagc	ccctgctgct	ctgggcagac	gatgctgaag	atgctctcct	ttaagctgct	60
gctgctggcc	gtggctctgg	gcttccttga	aggagatgct	aagtttgggg	aaagaaacga	120
agggagcgga	gcaaggagga	gaagggtgct	gaatgggaac	ccccgaagc	gcctgaaaag	180
gagagacagg	aggatgatgt	cccagctgga	gctgctgagt	gggggagaga	tgctgtgcgg	240
tggtctctac	cctcggtgtg	cctgctgctt	gcggagtgc	agcccggggc	tagggcgctt	300
ggagaataag	atattttctg	ttaccaacaa	cacagaatgt	gggaagtac	tgaggaaaat	360
caaatgtgca	ctttgtctct	cacattctca	aagcctgttc	cactcacctg	agagagaagt	420
cttggaaga	gacctagtac	ttcctctgct	ctgcaaagac	tattgcaaag	aattctttta	480
cacttgccga	ggccatattc	caggtttctt	tcaaacaact	gcggatgagt	tttgctttta	540
ctatgcaaga	aaagatggtg	ggttgtgctt	tccagatttt	ccaagaaaac	aagtcagagg	600
accagcatct	aactacttgg	accagatgga	agaatatgac	aaagtgggaag	agatcagcag	660
aaagcacaaa	cacaactgct	tctgtattca	ggaggttggt	agtgggctgc	ggcagcccgt	720
tggtgcctg	catagtgggg	atggctcgca	acgtctcttc	attctggaaa	agaagggtta	780
tgtgaagata	cttaccctgt	aaggagaaat	tttcaaggag	ccttattttg	acattcacaa	840
acttggttcaa	agtggaaata	aggttggctt	tttaaatttt	atttattttt	gtgctggcta	900
cgttaatatt	attttagtgt	taccttcttc	actgaaggta	tttctttgta	ataaaagaaa	960
gaatcttgca	ggagaaaata	agggggcaac	ataagaaaca	ataattatgg	cacctgaatt	1020
aggacagtga	cattaaattt	ctgttatttt	ttaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1080
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaa		1123

<210> 16

<211> 890

<212> DNA

<213> Homo sapiens

<400> 16

ttttaattga	tctgtgaraa	aacttaagaa	aatcacaatt	tcagctaaca	gcaatttgtgt	60
cccaaagatg	aagatactat	aacctcaaat	ggtgcagatc	cagaactggg	ctggatgaca	120
tcctactagt	gccatgtcct	ggggcatttg	gaagggactg	gacctctttc	ccctcatcaa	180
aggaacacag	agtctttgct	tctttctggt	ggttgtgccc	aagggttaca	gtagctctga	240
aataacaaga	gctctgtaat	aacagtaata	aatagctctg	aaataacagt	cctaagaact	300
cctaaagtcc	tgagaacttt	tcttgtaatg	cagctttttc	tcttcctgag	aaacagtgtg	360
ttctaattgg	attcccaggc	agttcctaca	cctacggtgt	gtgttccagc	agggaggagt	420

tatgggctgg	gctgcctttt	cccatgggtc	ttcattccca	atggaaagtt	cactctgctt	480
agtttggaat	tatttttctt	tcagttgttc	tggaaacctt	gctttttatt	gatttatata	540
atacaattgg	tgggagggtg	gacttgggat	gggagtggga	aaagcatgta	agagctcctt	600
ttgtgatgg	ccatctaccc	aaaagagatc	tgttttagtg	aacgatactc	tttcattttt	660
ctaaattaga	tcaagttggt	attgatttta	gatgacttgt	atgcaaattt	gaaaaacttt	720
tttttttaaa	gctgattggg	aactacaaac	aatgaatgga	atctactgac	acagctaatt	780
ggaaaacaga	tgtcttcttc	tgtcctattg	atgctggtgt	ttaaaaaaca	tcacttaaaa	840
aaaaagaata	aatagttcta	aaagcaaaaa	aaaaaaaaaa	aaaaaaattc		890

<210> 17

<211> 619

<212> DNA

<213> Homo sapiens

<400> 17

tcaggccccc	ctgactccgc	cccgaacac	tctcactcgc	ccttcgtgtc	ccatcaggtc	60
ccgctgactc	cgccccgcaa	tactctcact	cgccttygt	gtcccatcag	gtcccgtga	120
ctccgccccg	caacactctc	acttgccctt	cgtgtcccat	caggctcctgc	tgactccatc	180
tcctcagcgt	ctccaacatg	tcccttcctt	gccacctctt	gcctggatta	ctacagcagc	240
ttctaacgag	tctccctgcc	tttcagttct	ccgcaccgct	tcaagtgttc	agtctggatg	300
gtctgtcact	cccagcgcca	aaactgctga	cggcttccct	ttgccttcag	gacgaagtcc	360
gtgctgtctg	acataaactta	taggaccttt	tagccagcct	gggcaacata	gcaagaccct	420
gtctctacca	gaaaatacaa	aaatgagcca	ggcatagtgg	tgtgcacctg	tagtcccagc	480
tacttgggag	gctgaggtgg	gaggatcacc	tgagcccagg	aagtcaaggc	tgccagtgag	540
ccatgatcac	accactgcac	tccagcctgg	gccacagagt	gagaccctgt	ctcaaaaaaa	600
aaaaaaaaaa	aaaactcga					619

<210> 18

<211> 1768

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (483)

<223> n equals a,t,g, or c

<400> 18

gaagccagac	agtgcactca	aatgttgect	tggagtcccc	tacagcccct	cagcagaggg	60
cagcacttga	atgcttagct	ccatcccata	gttctctaca	ttaacatgct	gtctctaagg	120
gtggcccctc	ctctcaggcg	ttcagatggg	gcgaacagca	gagcaggcaa	gggaaactgg	180
ggagatgggg	atggaggagg	aaggctgata	tctctggggg	agcacatcac	ctgaagggtg	240
caaggaggaa	ggctgagagg	ggggmcaccc	atthytggtg	cccaatttgg	ttcttcagcc	300
caacttgcaa	ggggttcctt	ctggtcctcc	catccactgc	caccttccat	tttgtccatc	360
tcagtgtggc	cttggtggat	gggatggctg	tatctagaca	aaatttttct	aaaactccat	420
caaggctctt	attcaatacc	acgttccgag	ttggcctttc	atcttctttg	agactggccc	480
tgnctaacct	ctaccatcaa	tgagctcttg	gcccttctgc	ccttccctgt	gtttctcact	540
ttccaacctt	atccctggct	cagggttatt	gccagtggag	actggtgagc	tgggcctact	600
ctcagctgcc	tatcttctgc	ctttcacttg	catccaactc	ctggggctgg	gaccgtagta	660
gctgcggggg	ggaagaaaca	cagggtcggt	gagcccagca	tgtgcgttgg	tttgaggggg	720
cgggcggtgt	gtgtgtgttc	tgggtgggag	gatctgagca	agtgcaagcc	tggctgacac	780
aggtgtgaag	aggccatcct	ggaacccagk	tgagggcaag	atgaaggctt	ccaggcagaa	840
cagctgcaga	gagtttggt	atatgcatct	gcagcccaca	gagctcccac	tgcaagacaa	900
gtgttggggg	agatgggagg	ttgtgggtga	ggcctctaaa	ggctctctcc	caaactgacc	960
aggctgatgt	caacctaac	ccctcagggg	caggggaacag	gggaggggctc	cacaagcgtg	1020
tctggcattc	ccaccaccca	tgggaagactg	gatacgccac	tggaaacaaa	aggactatgg	1080

aagctgttca	agatacattt	gatcttcaga	aaagcagaat	ttggttcaac	tggtgacaga	1140
ggacacaaat	acgttggtcc	agagctcagc	cttctcactc	taaaagaaaag	atatttttct	1200
atatttttcc	tacatctggc	cagtggctct	ggtgctagat	gccactgtag	ccagatctcc	1260
aacagtgcct	tggaccatgg	actcatactc	aactgagtaa	gaaggggctg	gtgccagtgc	1320
gggtggctga	gctggctcct	aataggttgt	ttcttggctc	tgctttcttc	atgccctccc	1380
cactgtcctc	gccaccttta	gataagtttc	tctagctaat	tttgtggcca	atgtaaaatt	1440
cgatcatcaac	ctaacaaaca	caaccttctc	agcagcattt	ctcccctgtg	atggaaataa	1500
agtgttttagg	gcagtgggag	gagaaaattc	yyccagggtga	atggggaagg	gtctgttcca	1560
gcctctccct	actcccatcc	catttccacc	aactggggaa	ctgtgactat	ctatctcccc	1620
cgacttctac	cagggatgcc	ttcagccaag	gctgtttctca	ccagctgcct	cagatgacaa	1680
atgaggctaa	tggacataat	ctacagtgtc	ctttttcact	tgcacctttt	ttataagaat	1740
atattgtaat	actaaaaaat	attaaatt				1768

<210> 19

<211> 1699

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (871)

<223> n equals a,t,g, or c

<400> 19

ctcgtgccga	attcggcacg	agcgaaaaga	tggcggtcct	ggcacctcta	attgctctcg	60
tgtattcggg	gccgcgactt	tcacgatggc	tgcaccaacc	ttactacctt	ctgtcggccc	120
tgctctctgc	tgccctccta	ctcgtgagga	aactgccgcc	gctctgccac	ggtctgccc	180
cccaacgcga	agacggtaac	ccgtgtgact	ttgactggag	agaagtggag	atcctgatgt	240
ttctcagtcg	cattgtgatg	atgaagaacc	gcagatccat	cactgtggag	caacatatat	300
gcaacatttt	catgttttagt	aaagtggcca	acacaattct	tttcttccgc	ttggatatct	360
gcatgggcct	actttacatc	acactctgca	tagtgttcct	gatgacgtgc	aaaccccccc	420
tatatatggg	ccctgagtat	atcaagtact	tcaatgataa	aaccattgat	gaggaaactag	480
aacgggacaa	gagggtcact	tggattgtgg	agttctttgc	caattggtct	aatgactgcc	540
aatcattttg	ccctatctat	gctgacctct	cccttaaata	caactgtaca	gggctaaatt	600
ttgggaaggt	ggatgttgga	cgctatactg	atgttagtac	gcggtacaaa	gtgagcacat	660
caccctctac	caagcaactc	cctaccctga	tcctgttcca	aggtggcaag	gaggcaatgc	720
ggcggccaca	gattgacaag	aaaggacggg	ctgtctcatg	gaccttctct	gaggagaatg	780
tgatccgaga	atttaactta	aatgagctat	accagcgggc	caagaaacta	tcaaaggctg	840
gagacaatat	ccctgaggag	cagcctgtgg	nttcaacccc	caccacagtg	tcagatgggg	900
aaaacaagaa	ggataaataa	gatactcact	ttggcagtcg	ttcctctcct	gtcaattcca	960
ggctctttcc	ataaccacaa	gcctgaggct	gcagcctttt	atattatgtt	tccttttggc	1020
tgtgactggg	tggggcagca	tgcagcttct	gatttttaag	aggcatctag	ggaattgtca	1080
ggcaccctac	aggaaaggcct	gccatgctgt	ggccaactgt	ttcactggag	caagaaagag	1140
atctcatagg	acggaggggg	aaatggtttc	cctccaagct	tgggtyagtg	tgtaaactgc	1200
ttatcagcta	ttcagacatc	tccatggttt	ctccatgaaa	ctctgtgggt	tcattcattcc	1260
ttcttagttg	acctgcacag	cttggttaga	cctagattta	accctaaggt	aagatgctgg	1320
ggtatagaac	gctaagaatt	ttcccccaag	gactcttgct	tccttaagcc	cttctggcct	1380
cgtttatggg	cttcattaaa	agtataagcc	taactttgtc	gctagtccta	aggagaaacc	1440
tttaaccaca	aagtttttat	cattgaagac	aatattgaac	aacccccctat	tttgtgggga	1500
ttgagaaggg	gtgaatagag	gcttgagact	ttcctttgtg	tggtaggact	tggaggagaa	1560
atcccctgga	ctttcactaa	ccctctgaca	tactccccac	accagttga	tggctttccg	1620
taataaaaaag	attgggattt	ccttttgaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1680
aaaaaaaaaa	aaaaaaaaag					1699

<210> 20

<211> 736

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (728)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (733)
<223> n equals a,t,g, or c

<400> 20

aagtgaagtta	aggacgtact	cgtcttggtg	agagcgtgac	tgctgagatt	tgggagtcctg	60
cgctaggccc	gcttgagtt	ctgagccgat	ggaagagttc	actcatgttt	gcaccgcgg	120
tgatgcgtgc	ttttcgcaag	aacaagactc	tcggctatgg	agtcccatg	ttgttgctga	180
ttgttgagg	ttcttttgg	cttcgtgagt	tttctcaaat	ccgatatgat	gctgtgaaga	240
gtaaaatgga	tcctgagctt	gaaaaaaaac	tgaaagagaa	taaaatatct	ttagagtcgg	300
aatatgagaa	aatcaaagac	tccaagtttg	atgactggaa	gaatattcga	ggaccaggc	360
cttgggaaga	tcctgacctc	ctccaaggaa	gaaatccaga	aagccttaag	actaagacaa	420
cttgactctg	ctgattcttt	tttctttttt	ttttttttta	aataaaaaata	ctattaactg	480
gacttcctaa	tatatacttc	tatcaagtgg	aaaggaaatt	ccaggcccat	ggaaacttgg	540
atatgggtaa	tttgatgaca	aataatcttc	actaaaggtc	atgtacaggt	ttttatactt	600
cccagctatt	ccatctgtgg	atgaaagtaa	caatgttggc	cacgtatatt	ttacacctcg	660
aaataaaaaa	tgtgaatact	gtcctcaaaa	aaaaaaaagt	nggcgagctt	tccttagggg	720
ggtaattngc	tgntgc					736

<210> 21
<211> 1688
<212> DNA
<213> Homo sapiens

<400> 21

caaagaaggg	attcatcttg	cattggtgga	gctgctgaaa	aatttaacca	agtaccctac	60
tgatagggac	tccatatgga	agtgcttgaa	gtttctggga	agtcggcatc	caaccctggt	120
gcttcccttg	gtgccagagc	ttctgagcac	ccaccattt	tttgacacag	ctgaaccaga	180
catggatgat	ccagcttata	ttgcagtttt	ggtacttatt	ttcaatgctg	ctaaaacctg	240
tccaacaatg	ccagcattgt	tctcagatca	caccttcagg	cactatgcct	acctccgaga	300
cagtctttct	catcttggtc	ctgccttgag	gttaccaggt	agaaaactgg	tgatcatcagc	360
tgtttctccc	agcatcatac	ctcaagagga	tccttcccag	cagttcctgc	agcagagcct	420
tgaaagagtg	tatagtcttc	agcacttgga	ccctcagggg	gccaggagc	tgctggaatt	480
caccatcagg	gatctgcaaa	gacttgagga	acttcaatct	gaattggcag	gagtagctga	540
tttctctgcc	acctatcttc	gctgtcaact	acttctcatc	aaggccttgc	aggaaaagtt	600
gtggaatgta	gctgcccctt	tgtatttgaa	gcagagtgat	ttggcctcag	cagcagcgaa	660
acagattatg	gaagagacct	acaaaatgga	attcatgtac	agtgggtgtg	agaataagca	720
ggtggtgatt	atacatcaca	tgaggctgca	ggccaaagct	ttgcaactta	tagtaacagc	780
acgaactaca	cgaggacttg	acctcttatt	tgggatgtgt	gaaaaatttt	tacaggaagt	840
agactttttt	cagaggtatt	tcatcgctga	tttgccccac	ttgcaggaca	gctttgtgga	900
caaatctcct	gaccttatgc	cccgactcat	gacatccaaa	cctgcagaag	tggtcaaaat	960
tctacagacc	atgctgcgac	agagtgccct	tctgcatctc	ccgcttccag	agcagatcca	1020
caaagcctca	gccaccatca	tcgagccagc	gggcgagttc	agacaaccct	ttgcggttta	1080

cctctggggtt	ggtggttgcc	ctgggatgtt	gatgcaaccc	tggagcatgt	gcaggatcct	1140
cagaacactg	ttaagggtcca	gggtcttata	tccagatggc	caggsttcag	atgattcacc	1200
ccaagcctgc	agacttccgg	aatcctggcc	cagggcggca	cgggtcatc	actcagggtt	1260
atctctccca	caccgcttgg	acagaggcat	gccaggtgga	agtgaggctg	ctgctggcct	1320
acaactccag	tgctcgcatt	ccaaaatgcc	cctggatgga	gggtggtgag	atgtcaccac	1380
aggtggaaac	cagcatcgag	ggcaccattc	ccttcagcaa	gcctgtaaaa	gtttatataa	1440
tgcccaaacc	tgcacggcgc	taaggcaaaa	acagtcttcc	caaccgtgcc	tagaggggccc	1500
ttcttaggtg	tcagaatgag	ccaagcctga	agcacttcac	ctggaattga	tgtgtaggct	1560
taaggagtat	gtgaccctta	cagtctcatc	tggtatcaaa	cacaggataa	attgtttctt	1620
cattaataaaa	taaaaaaacct	tcaagtctac	ttacccttct	cctgtccaca	ataaagttga	1680
gaaaacac						1688

<210> 22

<211> 2045

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (2040)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (2041)

<223> n equals a,t,g, or c

<400> 22

gagctctcgg	ggtatcgagg	aggcaggccc	gcgggcgcac	gggcgagcgg	gccgggagcc	60
ggagcggcgg	aggagccggc	agcagcggcg	cggcgrgctc	caggcgaggc	ggtcgcgcct	120
cctgaaaact	tgcgcgcgcg	ctcgcccaact	gcgcccggag	cgatgaagat	ggtcgcgcgc	180
tggaacgcgg	tctactccaa	cagctgctgc	ttgtgctgcc	atgtccgcac	cggcaccatc	240
ctgctcggcg	tctgggtatct	gatcatcaat	gctgtggtac	tgttgatttt	attgagtgcc	300
ctggctgatc	cggatcagta	taacttttca	agttctgaac	tgggaggtga	ctttgagttc	360
atggatgatg	ccaacatgtg	cattgccatt	gcgatttctc	ttctcatgat	cctgatatgt	420
gctatggcta	cttacggagc	gtacaagcaa	cgcgcagctg	ggatcatccc	attcttctgt	480
taccagatct	ttgactttgc	cctgaacatg	ttggttgcaa	tcactgtgct	tatttatcca	540
aactccattc	aggaatacat	acggcaactg	cctcctaatt	ttccctacag	agatgatgtc	600
atgtgcagtg	aatccctacct	gtttgggtcct	tattattctt	ctgtttatta	gcattatcct	660
gacttttaag	ggttacttga	ttagctgtgt	ttggaactgc	taccgatata	tcaatggtag	720
gaactcctct	gatgtcctgg	tttatgttac	cagcaatgac	actacggtgc	tgctaccccc	780
gtatgatgat	gccactgtga	atggtgctgc	caaggagcca	ccgccacctt	acgtgtctgc	840
ctaagccttc	aagtgggcgg	actgagggca	gcagcttgac	tttgagaca	tctgagcaat	900
agttctgtta	tttcaacttt	gccatgagcc	tctctgagct	tgtttggtgc	tgaaatgcta	960
cttttttaaaa	tttagatgtt	agattgaaaa	ctgtagtttt	caacatatgc	tttgctrtaa	1020
cactgtgata	gattaactgt	agaattcttc	ctgtacgatt	ggggatataa	ygggcttcac	1080
taaccttccc	taggcattga	aacttcccc	aaatctgatg	gacctagaag	tctgcttttg	1140
tacctgctgg	gccccaaagt	tgggcatttt	tctctctgtt	ccctctcttt	tgaaaatgta	1200
aaataaaaacc	aaaaatagac	aactttttct	tcagccattc	cagcatagag	aacaaaacct	1260
tatggaaaca	ggaatgtcaa	ttgtgtaatc	attgtttctaa	ttaggtaaat	agaagtcctt	1320
atgtatgtgt	tacaagaatt	tccccacaa	catcctttat	gactgaagtt	caatgacagt	1380
ttgtgttttg	tggtaaagga	ttttctccat	ggcctgaatt	aagaccatta	gaaagcacca	1440
ggccgtggga	gcagtgaacca	tctgctgact	gttcttgttg	atcttggtgc	cagggacatg	1500
gggtgacatg	cctcgtatgt	gttagagggt	ggaatggatg	tgtttggcgc	tgcatgggat	1560
ctgggtgcccc	tcttctcctg	gattcacatc	cccaccagg	gcccgttttt	actaagtgtt	1620
ctgccctaga	ttggttcaag	gaggtcatcc	aactgacttt	atcaagtgga	attgggatat	1680
atgtgatata	cttctgccta	acaacatgga	aaagggtttt	cttttccctg	caagctacat	1740

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

cctactgctt	tgaacttcca	agtatgtcta	gtcacctttt	aaaatgtaaa	cattttcaga	1800
aaaatgagga	ttgccttcct	tgtatgcgct	ttttaccttg	actacctgaa	ttgcaaggga	1860
tttttatata	ttcatatgtt	acaaagtcag	caactctcct	gttggttcat	tattgaatgt	1920
gctgtaaatt	aagtygtttg	caattaaaac	aaggtttgcc	cacatccaaa	aaaaaaaaaa	1980
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	2040
naaaa						2045

<210> 23
 <211> 1101
 <212> DNA
 <213> Homo sapiens

<400> 23						
ttgtttgccg	accgtcaata	ttccccgcgc	tggacgggta	aatagctaaa	gctggcgcg	60
ggctgtcacc	tccgcctctg	ctccccgacc	cggccatgcy	cggcctcggg	ctctggctgc	120
tgggcgcgat	gatgctgcct	gcgattgccc	ccagccggcc	ctgggcccctc	atggagcagt	180
atgaggtcgt	gttgccgygg	cgtctgccag	gcccccgagt	ccgccgagct	ctgccctccc	240
acttgggcct	gcacccagag	aggggtgagct	acgtccttgg	ggccacaggg	cacaacttca	300
ccctccacct	gcggaagaac	agggacctgc	tgggytccgg	ctacacagag	acctatacgg	360
ctgccaatgg	ctccgaggtg	acggagcagc	ctcgcgggca	ggaccactgc	ttytaccagg	420
ggcacgtaga	gggttaccgg	gactcagccg	ccagcctcag	cacctgtgcc	ggcctcaggg	480
gtttcttcca	gggtgggtca	gacctgcacc	tgatcgagcc	cctggatgaa	ggtggcgagg	540
gcggacggca	cgccgtgtac	caggctgagc	acctgctgca	gacggccggg	acctgcgggg	600
tcagcgacga	cagcctgggc	agcctcctgg	gaccccgagc	ggcagccgtc	ttcaggcctc	660
ggccccggga	ctctctgcca	tcccagagaga	cccgtacgt	ggagctgtat	gtggctcgtg	720
acaatgcaga	gttccagatg	ctggggagcg	aagcagccgt	gcgtcatcgg	gtgctggagg	780
tgggtgaatca	cgtggacaag	ctatatcaga	aactcaactt	ccgtgtggtc	ctgggtgggc	840
tggagatttg	gaatagtcag	gacagggttc	acgtcagccc	cgaccccagt	gtcacactgg	900
agaacctcct	gacctggcar	gcacggcaac	ggacacggcg	gcacctgcat	gacaacgtac	960
agctcatcac	gggtgtcgag	ttcamcggga	ctactgtggg	gtttgccagg	gtgtccacca	1020
tgtgtcctcca	cagctcaggg	gctgtgaacc	aggaccacag	caagaacccc	gtgggcgtgg	1080
cctgcaccat	ggcccatgag	a				1101

<210> 24
 <211> 1659
 <212> DNA
 <213> Homo sapiens

<400> 24						
ccgggctgca	ggattcggca	cgagggtggga	gccagaaga	aagggttgct	ccggggtgga	60
acagggatta	tctcctcct	ccccttaaga	gtcatgctca	agagagacac	tctggcaact	120
ttcctggcag	agattcactt	ccctttgatt	tccaggggca	ttcggggcct	ccttttgcaa	180
atgtagagga	gcattctttc	agctatggag	ctagagacgg	accgcatgg	gactatcgag	240
gaggggaggg	acctggacat	gatttcaggg	ggggagattt	ttcgtcttct	gatttccaga	300
gcagagattc	atcacagttg	gacttcaggg	gtaggagcat	acattctggg	gattttcggg	360
atagagaagg	accacctatg	gactataggg	gtggagatgg	tacttctatg	gattatagag	420
gtagggaggc	acctcatatg	aactacagag	acagggatgc	tcacgctgtt	gacttcagag	480
gtagggatgc	tcttccatct	gacttcaggg	gccggggcac	ttatgattta	gatttttagag	540
gccgggatgg	atcccatgca	gatttttaggg	gaagggattt	atcagatttg	gatttttaggg	600
ccagagaaca	gtcccgttct	gatttttagga	atagagatgt	atctgatttg	gacttttagag	660
acaaagacgg	aacacaagta	gacttttagag	gccgagggtc	aggtactact	gatctagact	720
ttagggacag	ggatacgcca	cattcagatt	tcagaggtag	acaccgatct	aggactgatc	780
aggattttag	gggcagagag	atgggatctt	gtatggaatt	taaagatagg	gagatgcccc	840
ctgtggaatc	aaatatcttg	gattacattc	agccctctac	acaagataga	gaacattctg	900
gtatgaaatg	gaacaggaga	gaagaatcca	cacatgacca	tacgatagaa	aggcctgctt	960
ttggcattca	gaagggagaa	tttgagcatt	cagaaacaag	agaaggagaa	acacaagggtg	1020

tagcctttga	acatgagtct	ccagcagact	ttcagaacag	ccaaagtcca	gttcaagacc	1080
aagataagtc	acagctttct	ggacgtgaag	agcagagttc	agatgctggg	ctgtttaaag	1140
aagaaggcgg	tctggacttt	cttgggcggc	aagacaccga	ttacagaagc	atggagtacc	1200
gtgatgtgga	tcataggctg	ccaggaagcc	agatgtttgg	ctatggccag	agcaagtctt	1260
ttccagaggg	caaaactgcc	cgagatgccc	aacgggacct	tcaggatcaa	gattatagga	1320
ccggcccaag	tgaggagaaa	cccagcaggc	ttattcgatt	aagtggggta	cctgaagatg	1380
ccacaaaaga	agagattctt	aatgcttttc	ggactcctga	tggcatgcct	gtaaagaatt	1440
gcagttgaag	gagtataaca	caggttacga	ctatggctat	gtctgcgtgg	agttttcact	1500
cttggagat	gccatcggat	gcatggaggc	caaccaggct	ggtgattagt	aactaaagca	1560
tatgctgtgg	aacatccagc	actgatgcca	gattacctgt	ccctaatact	gagcagaagc	1620
tggtgaatga	aacaggagat	ccctcagtc	aaacaaaaa			1659

<210> 25

<211> 1329

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (520)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1140)

<223> n equals a,t,g, or c

<400> 25

tctgttcttc	tctcctggaa	gcttgccagc	ctcccttcag	aaccaatccc	aagaagccac	60
ctatccggaa	caacacaagg	atgctgccgg	actggaagag	stccttgatc	ctcatggctt	120
acatcatcat	cttctctact	ggcctccctg	ccaacctcct	ggccctgcgg	gcctttgtgg	180
ggcggatccg	ccagcccccag	cctgcacctg	tgcacatcct	cctgctgagc	ctgacgctgg	240
ccgacctcct	cctgctgctg	ctgctgccct	tcaagatcat	cgaggctgcg	tcgaacttcc	300
gctggtacct	gcccaaggtc	gtctgcgccc	tcaagagttt	tggsttctac	agcagcatct	360
actgcagcac	gtggctcctg	gcgggcatca	gcacgcagcg	ctacctggga	gtggctttcc	420
ccgtgcagta	caagctctcc	cgccggcctc	tgtatggagt	gattgcagct	ctgggtggct	480
gggttatgtc	ctttggtcac	tgcaccatcg	tgatcatcgn	tcaatacttg	aacacgactg	540
agcaggtcag	aagtggcaat	gaaattacct	gctacgagaa	cttcaccgat	aaccagttgg	600
acgtggtgct	gcccgtgmgg	stggagctgt	gcctggtgct	cttcttcats	cccatggcag	660
tcaccatctt	ctgctactgg	cgttttgtgt	ggatcatgct	ctcccagccc	cttgtggggg	720
cccagaggcg	gcgcccagcc	gtggggctgg	ctgtggtgac	gctgctcaat	ttcctggtgt	780
gcttcggacc	ttacaacgtg	tcccacctgg	tggggatatca	ccagagaaaa	agccccctgg	840
ggcgggtcaat	agccgtgktg	ttcagttcac	tcaacgccag	tctggacccc	ctgctcttct	900
atttctcttc	ttcagtggtg	cgcagggcct	ttgggagagg	gctgcagggt	ctgcgggaatc	960
agggtctctc	cctgttggga	cgcagaggca	aagacacagc	agagggggaca	aatgaggaca	1020
gggggtgtgg	tcaaggagaa	gggatgccaa	gttcggactt	cactacagag	tagcagtttc	1080
cctggacctt	cagaggtcgc	ctgggttaca	caggagctgg	gaagcctggg	agaggcggan	1140
caggaaggct	cccatccaga	ttcagaaatc	cttagaccca	gccaggact	gcgactttga	1200
aaaaaatgcc	tttcaccagc	ttggtatccc	ttcctgactg	aattgtccta	ctcaaaggag	1260
cataagtcag	agatgcacga	agaagtagtt	aggtatagaa	gcacctgccg	ggtgtggtgg	1320
ctcatgcct						1329

<210> 26

<211> 700

<212> DNA

<213> Homo sapiens

<220>
 <221> SITE
 <222> (81)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (659)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (692)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (700)
 <223> n equals a,t,g, or c

<400> 26

ggcagagagc	accatctgtc	atggcgggctg	ggctgttttg	tttgagcgct	cgccgtcttt	60
tggcggcagc	ggcgacgcga	ngggctcccg	gccgcccgcg	tccgctggga	atctagcttc	120
tccaggactg	tggtcgcccc	gtccgctgtg	gcggraaagc	ggcccccaga	accgaccaca	180
ccgtggcaag	aggacccaga	acccgaggac	gaaaacttgt	atgagaagaa	cccagactcc	240
catggttatg	acaaggaccc	cgttttggac	gtctggaaca	tgcgacttgt	cttcttcttt	300
ggcgtctcca	tcatcctggg	ccttggcgagc	acctttgtgg	cctatctgcc	tgactacagg	360
tgcacagggt	gtccaagagc	gtgggatggg	atgaaagagt	ggtcccgcgcg	cgaagctgag	420
aggcttgatg	aataccgaga	ggccaatggc	cttcccatca	tggaatccaa	ctgcttcgac	480
cccagcaaga	tccagctgcc	agaggatgag	tgaccagtgtg	ctaagtgggg	ctcaagaagc	540
accgccttcc	ccacccccctg	cctgccattc	tgacctcttc	tcagagcacc	taattaaagg	600
ggctgaaaagt	ctgaaaaaaaa	aaaaaaaaaaa	aaaaaaaaaaa	aaaaaaaaaaa	aaaaaaaaana	660
aaaaaaaaaaa	aaaaaaaaaaa	aaaaaaaaaaa	anggggggggn			700

<210> 27
 <211> 832
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (821)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (825)
 <223> n equals a,t,g, or c

<400> 27

ggcacgagct	ccactcgggt	tctctctttg	caggagcacc	ggcagcacca	gtgtgtgagg	60
ggagcaggca	gcggtcctag	ccagttcctt	gacccctgcc	gaccaccag	cccctggcac	120
agagctgctc	cacaggcacc	atgaggatca	tgctgctatt	cacagccatc	ctggccttca	180
gcctagctca	gagctttggg	gctgtctgta	aggagccaca	ggaggagggtg	gttcctggcg	240
ggggccgcag	caagagggat	ccagatctct	accagctgct	ccagagactc	ttcaaaagcc	300
actcatctct	ggaggggattg	ctcaaagccc	tgagccaggc	tagcacagat	cctaagggaat	360

caacatctcc	cgagaaacgt	gacatgcatg	acttctttgt	gggacttatg	ggcaagagga	420
gcgtccagcc	agactctcct	acggatgtga	atcaagagaa	cgtccccagc	tttggcatcc	480
tcaagtatcc	cccagagaca	gaataggtac	tccacttccg	gactcctgga	ctgcattagg	540
aagacctctt	tccctgtccc	aatccccagg	tgcgcacgct	cctgttacc	tttctcttcc	600
ctgttcttgt	aacattcttg	tgctttgact	ccttctccat	cttttctacc	tgaccctggt	660
gtggaaactg	catagtgaat	atccccaaac	ccaatgggca	ttgactgtag	aataccctag	720
agttcctgta	gtgtcctaca	ttaaaaatat	aatgtctctc	tctattcctc	aacaataaag	780
gatttttgca	tatgaaaaaa	aaaaaaaaaa	aaaaaaaaaa	naaanaaaaa	aa	832

<210> 28

<211> 2361

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (2361)

<223> n equals a,t,g, or c

<400> 28

ggcacgagcg	tccctaagcg	gttgtcaccg	ctggagacgg	ttgggagAAC	cgttgtggcg	60
agcgctacac	gaggcaaacg	acttctccct	tctttgaact	ggaccccgcg	agcaccagag	120
tcggcgtaac	tatcgctga	caggcattta	aatcaaacgg	tattgagatg	gattgggtta	180
tgaaacataa	tggtccaaat	gacgctatga	tgggacagta	cgacttcgtg	gactaccatt	240
tggttgcagc	aaagaggaaa	tagttcagtt	ctttcaaggg	ttggaaatcg	tgccaatggg	300
ataacattga	cgatggacta	ccaggggaga	agcacagggg	aggccttcgt	gcagtttgct	360
tcaaaggaga	tagcagaaaa	tgctctgggg	aaacacaagg	aaagaatagg	gcacaggtat	420
attgagatct	tcagaagtag	caggagtga	atcaaaggat	tttatgatcc	accaagaaga	480
ttgctgggac	agcgaccggg	accatatgat	agaccaatag	gaggaagagg	gggttattat	540
ggagctgggg	gtggaagtag	gtatgacaga	atgacgacgag	gaggtgatgg	atatgatggt	600
ggttatggag	gttttgatga	ctatggtggc	tataataatt	acggctatgg	gaatgatggc	660
tttgatgaca	gaatgagaga	tgggaagagg	atgggaggac	atggctatgg	tggagctggt	720
gatgcaagtt	caggttttca	tggtggtcat	ttcgtacata	tgagagggtt	gccttttcgt	780
gcaactgaaa	atgacattgc	taattttctt	tcaccactaa	atccaatacg	agttcatatt	840
gatattggag	ctgatggcag	agcacaggag	aagcagatgt	agagttttgt	acacatgaag	900
atgcagtagc	tgccatgtct	aaagataaaa	ataacatgca	acatcgatat	attgaactct	960
tcttgaattc	tactcctgga	ggcggctctg	gcatgggagg	ttctggaatg	ggaggctacg	1020
gaagagatgg	aatggataat	cagggagggt	atggatcagt	tggagaagatg	ggaatgggga	1080
acaattacag	tggaggatat	ggtagctcct	atgggtttgg	tggttatggc	cgtggtggtg	1140
gaggcagtgg	aggttactat	gggcaaggcg	gcatgagtgg	agggtggatgg	cgtgggatgt	1200
actgaaagca	aaaacaccaa	catacaagtc	ttgacaacag	catctggtct	actagacttt	1260
cttacagatt	taattttctt	tgtattttta	gaactttata	atgactgaag	gaatgtgttt	1320
tcaaaatatt	atttggtaaa	gcaacagatt	gtgatgggaa	aatgttttct	gtaggtttat	1380
ttgttgcata	ctttgactta	aaaataaatt	tttatattca	aaccactgat	gttgatactt	1440
tttatatact	agttactcct	aaagatgtgc	tgccctcata	agatttgggt	tgatgtattt	1500
tactattagt	tctacaagaa	gtagtgtggt	gtaatttttag	aggataatgg	ttcacctctg	1560
cgtaaactgc	aagtctttaag	cagacatctg	gaatagagct	tgacaaataa	ttagtgtaac	1620
ttttttcttt	agttcctcct	ggacaacact	gtaaatataa	agcctaaaga	tgaagtggct	1680
tcaggagtag	aaattcagct	aattatttct	atattattat	ttttcaaagt	tcattttatca	1740
ggcatagctc	tgaaacattg	atgatctaag	aggatttgat	ttctgaatat	tcataaattgt	1800
gttacctggg	tatgagagtg	ttggaagctg	aattctagcc	ctagattttg	gagtaaaacc	1860
ccttcagcac	ttgaccgaaa	taccaaataa	gtctccaaaa	aattgatagt	tgacaggttat	1920
cgcaagatgt	cttagagtag	ggttaagggt	ctcagtgaca	caagaattca	gtattaagta	1980
cataggtatt	tactatggag	tataattctc	acaattgtat	tttcagtttt	ctgccaataa	2040
gagtttaaat	aactgtataa	atgatgactt	taaaaaaatg	taagcaacaa	gtccatgtca	2100
tagtcaataa	aaacaatcct	gcagttgggt	tttgtatctg	atccctgctt	ggagttttag	2160
tttaaagaat	ctatatgtag	caaggaaaaag	gtgctttttta	attttaatcc	ctttgatcaa	2220

tatggctttt	ttccaaattg	gctaattgat	caaaatgaaa	cctgttgatg	tgaattcagt	2280
tattgaaactt	gttacttggt	tttgccagaa	atgttattaa	taaatgtcaa	tgtgggagat	2340
aataaaaaaa	aaaaaaaaa	n				2361

<210> 29

<211> 879

<212> DNA

<213> Homo sapiens

<400> 29

ggaatctgca	ccatgccctg	ggtttctgctc	ctcctgaccc	tcctcactca	ctctgcagtg	60
tcagtgggtcc	aggcagggtc	gactcagccc	ccctcgggtg	ccaaggactt	gagacagacc	120
gccacactca	cctgcaccgg	gaacaacaac	aatgttggcg	accaaggagc	agcttggctg	180
cagcagcacc	agggccaccc	tcccaaactc	ctgtcctaca	ggaataataa	ccggccctca	240
gggatctcag	agagattatc	tgcattccagg	tcaggagcca	catcctccct	gaccattact	300
ggactccagc	ctgaggacga	ggctgactat	tactgcgcag	catatgacag	cagcctcgca	360
gtttggatgt	tcggcgggag	gaccaagctg	accgtcctag	gtcagcccaa	ggctgcccc	420
tcggtcactc	tgttcccacc	ctcctctgag	gagcttcaag	ccaacaaggc	cacactgggtg	480
tgtctcataa	gtgacttcta	cccgggagcc	gtgacagtgg	cctggaaggc	agatagcagc	540
cccgtaagg	cgggagtggg	gaccaccaca	ccctccaaac	agagcaacaa	caagtacgcg	600
gccagcagct	acctgagcct	gacgcctgag	cagtgggaagt	cccacagaag	ctacagctgc	660
caggtcacgc	atgaaggagg	caccgtggag	aagacggtgg	cccctacaga	atgttcatag	720
gttcccaact	ctaaccacc	ccacgggagc	ctggagctgc	aggatcccag	gggaggggtc	780
tctctcccca	tcccaagtca	tccagccctt	ctcctgcac	tcataaaacc	ccaataaata	840
ttctcattgt	caatcagaaa	aaaaaaaaa	aaaaaaaaa			879

<210> 30

<211> 1732

<212> DNA

<213> Homo sapiens

<400> 30

gttcggaggg	aaacgtgtat	tgtgggtctca	agmmttgccc	cawattaacc	tgtgccttcc	60
cagtctctgt	tccagattcc	tgctgcgggg	tatgcagagg	agatggagaa	ctgtcatggg	120
aacattctga	tggtgatatc	ttccggcaac	ctgccaacag	agaagcaaga	cattcttacc	180
accgctcaac	ctatgatcct	ccaccaagcc	gacaggctgg	aggtctgtcc	cgctttcctg	240
gggccagaag	tcaccgggga	gctcttatgg	attcccagca	agcatcagga	accattgtgc	300
aaattgtcat	caataacaaa	cacaagcatg	gacaagtgtg	tgtttccaat	ggaaagacct	360
attctcatgg	cgagtccctg	cacccaaacc	tcggggcatt	tggcattgtg	gagtgtgtgc	420
tatgtacttg	taatgtcacc	aagcaagagt	gtaagaaaat	ccactgcccc	aatcgatacc	480
cctgcaagta	tcctcaaaaa	atagacggaa	aatgctgcaa	ggtgtgtcca	gaagaacttc	540
caggccaaag	ctttgacaat	aaaggctact	tctgcgggga	agaaacgatg	cctgtgtatg	600
agtctgtatt	catggaggat	ggggagacaa	ccagaaaaat	agcactggag	actgagagac	660
cacctcaggt	agagggtccac	gtttggacta	ttcgaaaggg	cattctccag	cacttccata	720
ttgagaagat	ctccaagagg	atgtttgagg	agcttctcta	cttcaagctg	gtgaccagaa	780
caaccctgag	ccagtggaag	atcttcaccg	aaggagaagc	tcagatcagc	cagatgtgtt	840
caagtcgtgt	atgcagaaca	gagcttgaag	atttagtcaa	ggttttgtac	ctggagagat	900
ctgaaaagg	ccactgttag	gcaagacaga	cagtattgga	tagggtaaag	caagaaaact	960
caagctgcag	ctggactgca	ggcttatttt	gcttaagtca	acagtgcctt	aaaactccaa	1020
actcaaatgc	agtcaattat	tcacgccatg	cacagcataa	tttgctcctt	tgtgtgtgtg	1080
tgtgtgtgtg	tgtgtgtgtg	tgtggtaaag	gggggaagg	ggtatgcggc	tgctccctcc	1140
gtccagagg	tggcagtgt	tccataatgt	ggagactagt	aactagatcc	taaggcaaa	1200
aggtgtttct	ccttctggat	gattcatccc	aaagccttcc	cacccagggt	ttctctgaaa	1260
gcttagcctt	aagagaacac	gcagagagtt	tccttagata	tactcctgcc	tccaggtgct	1320
gggacacacc	tttgcaaaat	gctgtgggaa	gcaggagctg	gggagctgtg	ttaagtcaaa	1380
gtagaaaccc	tccagtgttt	ggtgttgtgt	agagaatagg	acatagggtg	aagaggccaa	1440

gctgcctgta	gtagtagag	aagaatggat	gtggttcttc	ttgtgtat	atttgcata	1500
taaacacttg	gaacaacaaa	gaccataagc	atcatttagc	agttgtagcc	attttctagt	1560
taactcatgt	aaaCaagtaa	gagtaacata	acagtattac	cctttcactg	ttctcacagg	1620
acatgtacct	aattatggta	cttattttatg	tagtcactgt	atttctggat	ttttaaatta	1680
ataaaaaagt	taatttttgaa	aaatcaaaaa	aaaaaaaaaa	aaaaaaactc	ga	1732

<210> 31

<211> 3259

<212> DNA

<213> Homo sapiens

<400> 31

tttgcagtac	gggcccggatt	tcccgggtcg	accacgcgt	ccgcggaggc	tacgtgaaga	60
gaggcgccgc	gtgactgagc	tacggttctg	gctgcgtcct	agaggcatcc	ggggcagtaa	120
aaccgctgcg	atcgccggagg	cgccggccag	gccgagaggc	aggccgggca	ggggtgtcgg	180
acgcaggggcg	ctggggccggg	tttcggcttc	ggccacagct	ttttttctca	aggtgcaatg	240
aaagccttcc	acactttctg	tgttgctcct	ctggtgtttg	ggagtgtctc	tgaagccaag	300
tttgatgatt	ttgaggatga	ggaggacata	gtagagtatg	atgataatga	cttcgctgaa	360
tttgaggatg	tcatggaaga	ctctgttact	gaatctcctc	aacgggtcat	aatcactgaa	420
gatgatgaag	atgagaccac	tgtggagtgt	gaagggcagg	atgaaaacca	agaaggagat	480
tttgaagatg	cagataccca	ggagggagat	actgagagtg	aaccatatga	tgatgaagaa	540
tttgaagggt	atgaagacaa	accagatact	tcttctagca	aaaataaaga	cccaataacg	600
attgttgatg	ttcctgcaca	cctccagaac	agctgggaga	gttattatct	agaaattttg	660
atggtgactg	gtctgcttgc	ttatatcatg	aattacatca	ttgggaagaa	taaaaacagt	720
cgccttgcac	aggcctgggt	taacactcat	agggagcttt	tggagagcaa	ctttacttta	780
gtgggggatg	atggaactaa	caaagaagcc	acaagcacag	gaaagtgtga	ccaggagaat	840
gagcacatct	ataacctgtg	gtgttcttgt	cgagtgtgct	gtgagggcat	gcttatccag	900
ctgaggttcc	tcaagagaca	agacttactg	aatgtccttg	cccggatgat	gaggccagtg	960
agtgatcaag	tgcaaatata	agtaaccatg	aatgatgaag	acatggatac	ctacgtat	1020
gctgttgcca	cacggaaaagc	cttggtgcga	ctacagaaaag	agatgcagga	tttgagttag	1080
ttttgtagtg	ataaacctaa	gtctggagca	aagtatggac	tgccggactc	tttggccatc	1140
ctgtcagaga	tgggagaagt	cacagacgga	atgatggata	caaagatggg	tcactttctt	1200
acacactatg	ctgacaagat	tgaatctgtt	catttttctc	accagttctc	tggtccaaaa	1260
attatgcaag	aggaagggtca	gccttttaaag	ctacctgaca	ctaagaggac	actgttgttt	1320
acatttaaatg	tgccctggctc	aggtaacact	tacccaaagg	atatggaggc	actgctaccc	1380
ctgatgaaca	tggtgatttta	ttctattgat	aaagccaaaa	agttccgact	caacagagaa	1440
ggcaaacaaa	aagcagataa	gaaccgtgcc	cgagtgaag	agaacttctt	gaaactgaca	1500
catgtgcaaa	gacagggaagc	agcacagtct	cgccgggagg	agaaaaaaag	agcagagaag	1560
gagcgaatca	tgaatgagga	agatcctgag	aaacagcgca	ggctggagga	ggctgcattg	1620
aggcgtgagc	aaaagaagt	ggaaaagaag	caaatgaaaa	tgaacaaaat	caaagtga	1680
gcccatgtaa	agccatccca	gagatttgag	ttctgatgcc	acctgtaagc	tctgaattca	1740
caggaaacat	gaaaaacgcc	agtccatttc	tcaaccttaa	atttcagaca	gtcttgggca	1800
actgagaaat	ccttatattca	tcatctactc	tgtttggggg	ttgggtttta	cagagattga	1860
agatacctgg	aaagggtctct	gtttccaaga	attttttttt	ccagataatc	aaattatttt	1920
gattatttta	taaaaggaat	gatctatgaa	atctgtgtag	gttttaaaata	ttttaaaaaat	1980
tataatacaa	atcatcagtg	cttttagtac	ttcagtgttt	aaagaaatac	cgtgaaattt	2040
ataggtagat	aaccagattg	ttgctttttg	tttaaaccaa	gcagttgaaa	tggctataaa	2100
gactgactct	aaaccaagat	tctgcaataa	atgattggaa	ttgcacaata	aacattgctt	2160
gatgttttct	atttcaggga	cccagaacat	aatgtagtgt	atgttttttag	gtgggagatg	2220
ctgataacaa	aattaatagg	aagtctgtag	gcattaggat	actgacatgt	acatggaaaa	2280
ttctagggac	aggagcatca	ttttttcctt	acctgatacc	acgaaccagt	gacaacgtga	2340
atgctgtatt	ttaagtgggt	gtatgtttat	tttctggagt	aacaaatgca	tgaaaaatta	2400
atgcttcacc	taggtaagat	cattgggtctg	tgtgaaatca	caaagtgttt	ttccttcttg	2460
gttgctgcag	cctgggtggat	gttctatggg	aagctctgtt	ctctatatta	tggctgtgtg	2520
ccgttgcttc	tccctctgct	tttatctttt	ccacagttga	ggctgggtat	gttctttcaa	2580
agaaatggcc	atgaatatgt	gtaagtatac	ttttgaaaat	gagctttcct	aaactattga	2640
gagttctttc	cacctcttgc	ggaaccaact	cttggaggag	aggcccatgt	atctgcacga	2700

gcacttagct	tgttcagatc	tctgcatttt	ataaatgctt	cttaccaaga	aagcattttt	2760
aggtcattgc	ttgtaccagg	taattttttg	cggggatggg	taagggttgg	gttttctggg	2820
gggagtgggg	tgttggttat	tttttggtga	tgcttttagt	caggcctgtt	ctgaggcaat	2880
aacaagttgc	tgtgaaaacg	catgtgctgc	tgcccttgta	actgccatgg	aaacttttca	2940
catgggtttt	tctccaagtt	aatacagaaa	tatgtaaact	gagagatgca	aatgtaatat	3000
ttttaacagt	tcatgaagtt	gttattaaaa	taactaacat	aaaacttaat	tactttaata	3060
ttatataatt	atagtagtgg	ccttgtttta	caaaccttta	aattacattt	tagaaatcaa	3120
agttgatagt	cttagttatc	ttttgagtaa	gaaaagcttt	cctaaagtcc	catacatttg	3180
gaccatggca	gctaattttg	taacttaagc	attcatatga	actacctatg	gacatctatt	3240
aaagtgattg	acaaaaaaaa					3259

<210> 32

<211> 454

<212> DNA

<213> Homo sapiens

<400> 32

ggcacgaggt	cttgtctgcg	aagagttttac	gaggttttcac	ccactccttc	attcttgaac	60
atgctttttc	tctgcttatt	accctccctg	tttcctcctg	ggctgccaac	aacacattat	120
attacctcca	tctgcaacca	gagctgctac	caccactgtg	cccagcctg	aattttcata	180
gttatattaa	aaaaaatcaa	ggtgctggga	ttacaggcgt	gagccaccgc	gcccggctgt	240
agcccctgtc	tttattcctc	ccctgtctaa	cccgtcctca	gcatgaatgc	cagagttacc	300
tcttaawta	tgtcagggtg	ctaggcacag	tggtcatgc	ctgtaatccc	agctcttggg	360
aaggcagagg	caggaggaca	amttgagccc	aggagtttga	gacctgcttg	gggaatgtag	420
tgagaccttg	ttctccacaa	aaaggaaaaa	aaaa			454

<210> 33

<211> 230

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (219)

<223> n equals a,t,g, or c

<400> 33

gctgctatgg	ctgaactttt	attganogtg	ttgtctgtgc	agagcgctgt	gcacgaggtg	60
gaagcaaacg	agggaggaaa	acaaagccac	acccctgccc	acagaggatg	gaacagaagg	120
gccgctgagg	tcaggaaggc	aaggttgcca	ctaggtgtta	ctgtggggcc	cagatgccgc	180
catgctgttc	acccttcaaa	gggtggcatc	tcagcccang	cagtcctcct		230

<210> 34

<211> 753

<212> DNA

<213> Homo sapiens

<400> 34

ggcacgagga	aaggctggcc	tctcttcaac	atgggatctt	ctggactttt	gagcctcctg	60
gtgctattcg	tcctcttagc	gaatgtccag	ggacctggtc	tgactgattg	gttatttccc	120

aggagatgtc	ccaaaatcag	agaagaatgt	gaattccaag	aaagggatgt	gtgtacaaaag	180
gacagacaat	gccaggacaa	caagaagtgt	tgtgtcttca	gctgcggaaa	aaaatgttta	240
gatctcaaac	aagatgtatg	cgaaatgcca	aaagaaactg	gcccctgcct	ggcttatttt	300
cttcattggg	ggatgacaa	gaaagataat	acttgctcca	tgtttgtcta	tggtggctgc	360
cagggaaaca	ataacaactt	ccaatccaaa	gccaaactgc	tgaacacctg	caagaataaa	420
cgctttccct	gattggataa	ggatgcactg	gaagaactgc	cagaatgtgg	ctcatgctct	480
gagtactggt	cctgtacctg	actgatgctc	cagactggct	tccagtttca	ctctcagcat	540
tccaagatct	tagcccttcc	cagaacagaa	cgcttgcatc	tacctcctct	tcctccatct	600
ttggctcttt	tgatgcacaa	tatccatccg	ttttgatttc	atctttatgt	cccctttatc	660
tccaacttct	agaactccca	gtttatacct	gtgtcactct	caattttttc	cagtaaagta	720
cttgatgtag	taaaaaaaaa	aaaaaaaaaa	aaa			753

<210> 35

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 35

cgctcctgcc	gccgggaccc	tgcacctcct	cagagcagcc	ggctgccgcc	ccgggaagat	60
ggcgaggagg	agccgccacc	gcctcctcct	gctgctgctg	cgctacctgg	tggtcgccct	120
gggctatcat	aaggcctatg	ggttttctgc	cccaaaagac	caacaagtag	tcacagcagt	180
agwgtaccaa	gaggctatgt	tagcctgcaa	aaccccaaag	aagactgttt	sctccagatt	240
agagtggaa	aaactgggtc	ggagtgtctc	ctttgtctac	tatcaacaga	ctcttcaagg	300
tgattttaaa	aatcgagctg	agatgataga	tttcaatatc	cggatcaaaa	atgtgacaag	360
aagtgatgcg	gggaaatatc	gttgtgaagt	tagtgcccca	tctgagcaag	gccaaaacct	420
ggaagaggat	acagtcactc	tgggaagtatt	agtggctcca	gcagttccat	catgtgaagt	480
accctcttct	gctctgagtg	gaactgtggt	agagctacga	tgtcaagaca	aagaagggaa	540
tccagctcct	gaatacacat	ggtttaagga	tggcatccgt	ttgctagaaa	atcccagact	600
tggctcccaa	agcaccaaca	gctcatacac	aatgaatata	aaaactggaa	ctctgcaatt	660
taataactgt	tccaaaactgg	acactggaga	atattcctgt	gaagcccgca	attctgttgg	720
atatcgcagg	tgtcctggga	aacgaatgca	agtagatgat	ctcaacataa	gtggcatcat	780
agcagccgta	gtagtgtggg	ccttagtgat	ttccgtttgt	ggccttggtg	tatgctatgc	840
tcagaggaaa	ggctactttt	caaaagaaac	ctccttccag	aagagtaatt	cttcatctaa	900
agccacgaca	atgagtgaag	atgatttcaa	gcacacaaaa	tcctttataa	tttaaagact	960
ccactttaga	gatacaccaa	agccaccgtt	gttacacaag	ttattaaact	attataaaac	1020
tc						1022

<210> 36

<211> 3044

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (2383)

<223> n equals a,t,g, or c

<400> 36

ctctaagaac	ctagtggatc	cccccgccct	gcaggaattc	gggcacgagg	ggagactgct	60
gtggctaagg	agggcgaggaa	gggccctctg	tggggctgcc	atthttggctg	ggacctaaat	120
gcagtaaagg	agcagctacg	ggaatataga	gagtggggct	tccaggcaga	gaagcctgca	180
gtgcaaagg	ctgcagacaa	cgacctgggc	gtcttcaagg	gacacaagga	atcatattgc	240
cagaacacat	tgtacaggta	gccagggtgc	ggctctccagc	ctgagaactc	tggtgttgt	300
tccttgtgtc	gtcccatatt	cctgcctggc	ctgcgatgga	catcagcaag	ggcctcccag	360
gcatgcaggg	agggcctccac	atatggatct	ctgagaaccg	gaagatgggtg	ccggtaccg	420
agggggctta	cgggaaacttt	ttcgaggaac	actgctatgt	catcctccac	gtcccccaga	480

gcccgaaggy	cacgcagggg	gcgtccagcg	acctgcacta	ctgggtcggg	aagcaggcgg	540
gtgcggaagc	gcagggcgct	gcggaggcct	tccagcagcg	cctacaggac	gagctggggg	600
gccagaccgt	gctgcaccgc	gagggcgagg	gccacgagtc	cgactgcttc	tgcagctact	660
tccgcccggg	aatcatctac	aggaagggag	gcctagcatc	tgacctcaag	catgtggaga	720
ccaacttggt	caacatccag	cgactgctgc	acatcaaagg	gaggaagcac	gtgtctgcca	780
ctgaggtgga	gctctcctgg	aacagcttta	ataaggggtga	catcttcctg	ctggacctag	840
gcaagatgat	gattcagtg	aatgggccc	agaccagcat	ttctgagaag	gctcgggggc	900
tgycttgac	ctacagcctc	cgggacagg	aacgtgggtg	tggtcgtgca	cagattgggtg	960
tggtggatga	tgaggccaaa	gccccggacc	tcatgcagat	catggaggct	gtgctggggc	1020
gcaggggtgg	cagmctgcgt	gccgccacgc	ccagcaagga	tatcaaccag	ctgcagaagg	1080
ccaatgttcg	cctgtaccat	gtctatgaga	agggcaaaga	cctggtgggtc	ctggagttgg	1140
cgaccccccc	actgacccag	gacctgctgc	aggaggagga	cttctacatc	ctggaccagg	1200
gtggcttcaa	gatctatgtg	tggcaggggac	gcatgtctag	cctccaggag	agaaaggctg	1260
ccttcagccg	ggctgtgggc	ttcatccagg	ccaagggcta	ccgacctac	accaacgtgg	1320
aggtggtgaa	cgacggcgcc	gagtcggccg	cgttcaagca	gctcttcctg	acttgggtctg	1380
agaagcggcg	caggaaccag	aagctcggcg	ggagggataa	atcgattcat	gtaaagctgg	1440
acgtgggcaa	gctgcacacc	cagcctaagt	tagcggccca	gctcaggatg	gtggacgacg	1500
gctctgggaa	gggtggaggtg	tggtgcatcc	aggacttaca	caggcagccc	gtggacccca	1560
agcgtcatgg	acagctgtgt	gcaggcaact	gctaccttgt	gctctacaca	taccagagggc	1620
tgggcccgtg	ccagtacatc	ctgtacctat	ggcagggcca	ccaggccact	gcggtatgaga	1680
ttgaggccct	gaacagcaac	gctgaggaac	tagatgtcat	gtatggtggc	gtcctagtac	1740
aggagcatgt	gaccatgggc	agcagagccc	cccacttctc	cgccatcttc	cagggccagc	1800
tggtgatctt	ccaggagaga	gctggggcacc	acggaaagg	gcagtcagca	tcaccacca	1860
ggcttttcca	agtgcgaagg	actgacagcc	acaacaccag	gacctggag	gtgccagccc	1920
gtgcctcatc	cctcaactcc	agtgcacatc	tcttgctgg	cacagccagc	gtctgctacc	1980
tctggtttgg	gaagggtgt	aatggtgatc	agcgtgagat	ggcacgggtg	gtggtcactg	2040
tcattttccg	gaagaatgag	gaaacgggtg	tggagggtca	ggagcctccc	cacttctggg	2100
aggccctggg	aggccgggsc	ccctacccca	gcaacaagag	gctccctgag	gaggtcccca	2160
gcttccagcc	acgactgttt	gagtgctcca	gccacatggg	ctgcctgggtc	ctcgcagaag	2220
tggggttctt	cagccaggag	gacctggaca	agtatgacat	catgttactg	gacacctggc	2280
aggagatctt	cctgtgggct	ggggaagctg	caagtgagtg	gaaggaggcg	gtggcctggg	2340
gccaggagta	cctgaagact	caccagcag	ggaggagccc	ggnacacacc	atcgtgctgg	2400
tcaagcaggg	ccatgagcct	cccaccttca	ttggatgggt	cttcacttgg	gacccctaca	2460
agtggactag	ccacccatcc	cacaaggaag	tggtggatgg	cagcccggca	gcagcatcaa	2520
ccatctctga	gataacagca	gaagtcaaca	acttccggct	atccagatgg	ccgggcaatg	2580
gcagggcagg	tgccgtggcc	ctgcaggccc	tcaagggctc	ccaggacagc	tcagagaatg	2640
atctggtgcy	aagccccaag	tcggctggca	gcagaaccag	cagctccgtc	agcagcacca	2700
gcgccacgat	caacgggggg	ctgcgccggg	aacaactgat	gcaccaggct	gttgaggacc	2760
tgccagaggg	cgtggaccct	gccccgagg	agttctatct	ctcagactct	gacttccaag	2820
atatcttttg	gaaatccaag	gaggaattct	acagcatggc	cacgtggagg	cagcggcagg	2880
agaaaaagca	gctgggcttc	ttctgaaccc	aagccctctc	gactgcccct	atcccctgga	2940
ccccaacata	cctacaatgc	tggggaggcc	ctgcttccac	tcccctcaga	ggcttttgg	3000
catcctctgc	gtgtcagtaa	aagcaggcag	cccataaaaa	aaaa		3044

<210> 37

<211> 541

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (420)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (486)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (530)

<223> n equals a,t,g, or c

<400> 37

ttcaaggatt	ataatatgct	gagtaaactt	ttggcactaa	ggaagccagc	tacaggccac	60
gtaatgaaaa	ctattcagaa	aacagttcag	caaatactac	tatttgaata	cagttcaa	120
cgtatttata	taaatactct	gcctacatta	tttaacccaa	actggattat	tcaccattct	180
ttgaagatgc	cttgtgtttt	ctgttatcta	cttctgctcg	tgcagtttac	ttacaccttc	240
accctttcaa	atcctaactc	ttcttcaagg	cctgattcag	attttaactt	tttaaaggct	300
atctgaatca	ttcaaggagg	aagataccct	ttctctcata	aaaacactta	gagcaaaacta	360
ccactattaa	atcacttatt	gcatactgaa	aaaaaaaaaa	aaaaaaactc	gaaggggggn	420
ccggtaccca	attcgcccta	tagtgagtcg	tattacaatt	cactgggccg	tcgttttaca	480
acgtcntgac	tgggaaaacc	ctggcgttac	ccaacttaat	cgccttgcan	cacatcccc	540
t						541

<210> 38

<211> 1752

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> n equals a,t,g, or c

<400> 38

gtcggcgggcg	gcggcgggcg	ttgaactgac	tcggagcgag	gagacccgag	cgagcagacg	60
cggccctggc	gcccgccttg	cgcactcacc	atggcgatgc	atttcattct	ctcagataca	120
gcggtgcttc	tgtttgattt	ctggagtgtc	cacagtcctg	ctggcatggc	cctttcggtg	180
ttggtgctcc	tgcttctggc	tgtactgtat	gaaggcatca	aggttggcaa	agcaagctgc	240
tcaaccaggt	actggtgaac	ctgccaacct	ccatcagcca	gcagaccatc	gcagagacag	300
acggggactc	tgcaggetca	gattcattcc	ctgttggcag	aaccaccac	aggtgntatt	360
tgtgtcactt	tggccagtct	ctaateccatg	tcateccaggt	ggtcatcggc	tacttcatca	420
tgctggccgt	aatgtcctac	aacacctgga	ttttccttgg	tgtggtcttg	ggctctgctg	480
tgggctacta	cctagcttac	ccacttctca	gcacagctta	gctggtgagg	aacgtgcagg	540
cactgaggct	ggaggggacat	ggagccccct	cttccagaca	ctatacttcc	aactgccctt	600
tcttctgatg	gctattcctc	caccttatte	ccagccccctg	gaaactttga	gctgaagcca	660
gcacttgctc	cctggagtcc	ggaagccatt	gcagcaacct	tccttctcag	ccagcctaca	720
tagggcccag	gcatggctct	gtgtcttaag	acagctgctg	tgaccaaagg	gagaatggag	780
ataacagggg	tggcaggggt	actgagccca	tgacaatgct	tctctgtgac	tcaaaccagg	840
aatttccaaa	gatttcaagc	caggggagaag	ggttcttggg	gatgcagggc	atggaaacctg	900
gacaccctca	gctctcctgc	tttgtgcctt	atctacagga	gcategccca	ttggacttcc	960
tgacctcttc	tgtctttgag	ggacagagac	caagctagat	cctttttctc	acctttctgc	1020
ctttggaaca	catgaagatc	atctcgtcta	tggatcatgt	tgacaaaacta	agtttttttt	1080
atttttccca	ttgaactcct	agttggcaat	tttgcacatt	catacaaaaa	aattttta	1140
gaaatgattt	cattgattca	tgatggatgg	cagaaaactgc	tgagacctat	ttccctttct	1200
tggggagaga	ataagtgaca	gctgattaaa	ggcagagaca	caggactgct	ttcaggctcc	1260
tgggttattc	tctgatagac	tgagctcctt	ccaccagaag	gcactgcctg	caggaagaag	1320
awgatctgat	ggccgtgggt	gtctgggaag	ctcttcgtgg	cctcaatgcc	ctcctttatc	1380
ctcatctttc	ttctatgcag	aacaaaaagc	tgcattcta	aatgttcaat	acttaatat	1440
ctctatttat	tacttactgc	ttactcgtaa	tgatctagt	gggaaacatg	attcattcac	1500
ttaaaatact	gatttaagcca	tggcaggtac	tgactgaaga	tgcaatccaa	ccaaagccat	1560
tacatttttt	gagtttagatg	ggactstctg	gatagttgaa	cctcttcact	ttataaaaaa	1620

ggaaaagagag aaaatcactg ctgtatacta aatacctcac agattagatg aaaagatggt 1680
 tgtaagcttt gggaattaaa aacaaacaaa tacatttttag taaatatata tttttaataa 1740
 aaaaaaagaa aa 1752

<210> 39

<211> 1907

<212> DNA

<213> Homo sapiens

<400> 39

agttcagggg	cacagggggca	caggcccacg	actgcagcgg	gatggaccag	tactgcatcc	60
tgggcccgc	at	cggggagggc	gcccammgga	tcgtcttcaa	ggccaagcac	120
gcgagatagt	tgccctcaag	aaggtggccc	taaggcgggt	ggaagacggc	ttccctaacc	180
aggccctgcg	ggagattaag	gctctgcagg	aratggagga	caatcagtat	gtggtacaac	240
tgaaggctgt	gttcccacac	ggtggaggct	ttgtgctggc	ctttgagttc	atgctgtcgg	300
atctggccga	ggtggtgcgc	catgccacga	ggccactagc	ccaggcacag	gtcaagagct	360
acctgcagat	gctgctcaag	ggtgtgcgct	tctgccatgc	caacaacatt	gtacatcggg	420
acctgaaacc	tgccaacctg	ctcatcagcg	cctcaggcca	gctcaagata	gcggactttg	480
gcctggctcg	agtcttttcc	ccagacggga	gccgcctcta	cacacaccag	gtggccacca	540
ggagctcact	gagctgcggg	actacaacaa	gatctccttt	aaggagcagg	tgcccattgcc	600
cctggaggag	gtgctgcctg	acgtctctcc	ccaggcattg	gatctgctgg	gtcaattcct	660
tctctaccct	cctcaccagg	gcctgcagcg	ttccaaggct	ctcctccatc	agtacttctt	720
cacagctccc	ctgcctgccc	atccatctga	gctgccgatt	cctcagcgtc	tagggggacc	780
tgcccccaag	gcccattccag	ggccccccca	catccatgac	ttccacgtgg	accggcctct	840
tgaggagtgc	ctgttgaacc	cagagctgat	tcggcccttc	atcctggagg	ggtgagaagt	900
tggccctggt	cccgtctgcc	tgctcctcag	gaccactcag	tccacctggt	cctctgccac	960
ctgcctggct	tcacctcca	aggcctcccc	atggccacag	tgggcccaca	ccacaccctg	1020
ccccttagcc	cttgcgargg	ttggtctcga	ggcagaggtc	atgttcccag	ccaagagtat	1080
gagaacatcc	agtcgagcag	aggagattca	tggcctgtgc	tcggtgagcc	ttaccttctg	1140
tgtgctactg	acgtacccat	caggacagtg	agytctgctg	ccagtcaagg	cctgcatatg	1200
cagaatgacg	atgcctgcct	tggtgctgct	tccccgagtg	ctgcctcctg	gtcaaggaga	1260
agtgcagaga	gtaagggtgc	cttatgtttg	aaactcaagt	ggaaggaaga	tttggttttg	1320
ttttattctc	agagccatta	aacactagtt	cagtatgtga	gatatagatt	ctaaaaacct	1380
caggtggctc	tgcttatgt	ctgttcctcc	ttcatttctc	tcaagggaag	tggctaaggt	1440
ggcattgtct	catggctctc	gtttttgggg	tcattggggg	ggtagcacca	ggcatagcca	1500
cttttgccct	gagggactcc	tgtgtgcttc	acatcactga	gcactcattt	agaagtggag	1560
gagacagaag	tctaggccca	gggatggctc	cagttgggga	tccagcagga	gaccctctgc	1620
acatgaggct	ggtttaccaa	catctactcc	ctcaggatga	gcgtgagcca	gaagcagctc	1680
tgtattttaag	gaaacaagcg	ttcctggaat	taatttataa	atttaataaa	tcccaatata	1740
atcccagcta	gtgctttttc	cttattataa	tttgataagg	tgattataaa	agatacatgg	1800
aaggaagtgg	aaccagatgc	agaagaggaa	atgatggaag	gacttatggt	atcagataacc	1860
aatattttaa	agtttgtata	ataataaaga	gtatgattgt	ggttcaa		1907

<210> 40

<211> 2350

<212> DNA

<213> Homo sapiens

<400> 40

gaagaagagc	gacctgcct	aatggatgac	agaaagcaca	aaatttgtag	catgtatgac	60
aacttaaggg	ggaaattgcc	tggacaagag	aggcctagtg	atgaccactt	tgtacagatc	120
atgtgtatcc	gaaaagggaa	gagaatgggt	gcccgtattc	ttcctttcct	ctccacagag	180
caagcagctg	acattctcat	gacaacagcc	aggaacctcc	ctttccttat	caagaaggat	240
gcacaagatg	aggtgctgcc	atgcttactg	agtcctctct	ctctccttct	ctatcatctt	300
ccatcagtga	gtatcaccag	cctttttgca	cataatgaac	ctacctcaaa	gtgcagctac	360
accagcactc	tccaatcctc	acctcactgc	tgtgctccag	aacaagtttg	gcctgtcact	420

gstcctcatc	ctcctgagcc	gtgggtgaaga	cctacagagt	tcagaccctg	ctacagaatc	480
aacacaaaaa	aatcagtgga	cggaggtgat	gttcatggca	acacgagaac	ttctgcggat	540
tccccaagca	gccctggcca	agccaatctc	tatacctaca	aacctagtgt	ccctcttttc	600
tcgctatgtt	gaccggcaga	aactgaactt	gctggagasa	aaactgcagc	tagttcaggg	660
gatacgataa	aagatctcca	aatgtgtcct	gtacctcctt	ttggctgcca	cctgcactgc	720
tgccatcacc	aatggrgtgt	ttttaatgag	ggaaggaagg	tagctttttc	cccaaagcaa	780
agkmttgtgg	gatcgattcc	tgtttacagg	ggttgtctct	ctaaatgtca	gatattttccc	840
cactgctcta	tgaaatttgg	ctgggtgata	cttctgctgg	tttctttacc	ttctgtgtta	900
cagttctgca	tgtcctactt	ttactcagtt	ctgttttgca	tttwccttgc	cctagagaca	960
caagtgtaat	ctctcccttt	atccctccac	tactccacct	cagagtagat	tgtagcctgc	1020
caaaggattc	cttccctcat	cctattgaag	ttgttttttc	attgccccat	attaatatga	1080
catagaaga	gccaattaag	tagaaatcaa	gatatacaca	cacacataga	tacacacaca	1140
cacaccccat	acatgtattt	atgtggctct	cagagggctc	ttaaagaatg	aatttttagat	1200
tgaaaaatat	ttagttgtct	cattacctct	tctaaacaca	aaccagctga	tgtatttttaa	1260
tctgtttctg	ttctatcttg	taattaattt	ggtaggttct	acttgtttta	acataaataa	1320
agagtatgca	gcacgtttta	taaaatcaga	actcttaatt	ggcttatgcc	caggtctagg	1380
ctgagaagtc	ctttttcttc	ttcccacctt	tatttcttta	gtttctgtcc	accttaatcg	1440
aaacaacaca	tggttatgtc	tttttctctg	tacaactaca	gggtacttga	gcctttcccc	1500
tcaagtgcac	tcgaagtcac	ccaggatgat	cctcactagt	agcctgcttt	ggcagtgtgg	1560
ctttttgcac	acttgccctg	tcttctctgag	actacttcag	taagccatgc	ttccttcttc	1620
cccactttta	tttgggtgca	tgaatagaaa	cttccaaatg	taacctatga	agctaagttt	1680
ggcctgcttt	gcttttttagt	ctccacacca	tgggcagAAC	tgtgtctctt	actacttcat	1740
ctcacccaag	tcccgttccc	aggcagccar	gggcctgggt	tttgaataat	tgcaagggcc	1800
agcctgccat	gatctttctc	acttactcct	ctcccattca	gcaatcaacc	agactaagga	1860
gttttgatcc	ctagtgatta	cagccctgaa	gaaaattaaa	tctgaattaa	ttttacatgg	1920
ccttcgtgat	ctttctgctg	ttcttacttt	ttcgaatgta	gttggggggg	gggagggaca	1980
ggttatggta	tttaaagaga	ataaacattt	tgcacatata	tgtattgtac	aacagtaaga	2040
tcctctgtta	aaaccagctg	tcctgttctc	catctccatt	tcttcccatg	ctgtaacccc	2100
aggctccacc	agctgttccc	cagtgatgtt	acctagcttc	cctctaccgt	tgtctactga	2160
ccatttccac	tacatgcctt	tcctaccttc	ccttcacaac	caatcaagtg	aatacttgat	2220
tattatctct	tccttactgt	gctttatctt	ttttgtttgg	attggttcta	attaatgaaa	2280
ataaaagttt	ctaaattttac	atttttatag	ggatttgtaa	ataaaaaaca	attgtatact	2340
taaaaaaaaa						2350

<210> 41

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 41

gggcagacga	tgctgaagat	gctctccttt	aagctgctgc	tgctggccgt	ggctctgggc	60
ttctttgaag	gagatgctaa	gtttggggaa	agaaacgaag	ggagcggaca	aggaggagaa	120
ggtagcctgaa	tgggaacccc	ccgaagcgcc	tgaaaaggag	agacaggagg	atgatgtccc	180
agctggagct	gctgagtggg	ggagagatgc	tgtgcgggtg	cttctaccct	cggctgtcct	240
gctgcctgcg	gagtgcacgc	ccggggctag	ggcgccctgga	gaataagata	ttttctgtta	300
ccaacaacac	agaatgtggg	aagttactgg	aggaaatcaa	atgtgcactt	tgctctccac	360
atttctcaaag	cctgttccac	tcacctgaga	gagaagtctt	ggaaagagac	ctagtacttc	420
ctctgctctg	caaagactat	tgc aaagaat	tctttttacac	ttgccgaggc	catattccag	480
gtttccttca	aacaactgcg	gatgagtttt	gctttttacta	tgcaagaaaa	gatggtgggt	540
tgtgctttcc	agattttcca	agaaaacaag	tcagaggacc	agcatctaac	tacttggaac	600
agatggaaga	atatgacaaa	gtggaagaga	tcagcagaaa	gcacaaacac	aactgcttct	660
gtattcagga	ggttgtgagt	gggctgcggc	agcccgttgg	tgccctgcat	agtggggatg	720
gctcgcaacg	tctcttcatt	ctggaaaaag	aaggttatgt	gaagataact	acccctgaag	780
gagaaatttt	caaggagcct	tattttggaca	ttcacaactt	tgttcaaagt	ggaataaagg	840
ttggcttttt	aaatttttatt	tattttttgtg	ctggctacgt	taatttttatt	ttagtggttac	900
cttctcact	gaagggtattt	ctttgttaata	aaagaaagaa	tcttgcagga	gaaaaataagg	960
gggcaacata	agaaacaata	attatggcac	ctgaattagg	acagtgcacat	taaaakgttgg	1020

ctkttttawat ttttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1080
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1114

<210> 42
 <211> 1652
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (1640)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (1644)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (1648)
 <223> n equals a,t,g, or c

<400> 42
 ttggcacctc taattgctct cgtgtattcg gtgccgcgac tttcacgatg gctcgcccaa 60
 ccttactacc ttctgtcggc cctgctctct gctgccttcc tactcgtgag gaaactgccg 120
 ccgctctgcc acggtctgcc caccacaacgc gaagacggta acccgtgtga ctttgactgg 180
 agagaagtgg agatcctgat gtttctcagt gccattgtga tgatgaagaa ccgcagatcc 240
 atcactgtgg agcaacatat aggcaacatt ttcattgttta gtaaagtggc caacacaatt 300
 cttttcttcc gcttgatat tgcgatgggc ctactttaca tcacactctg catagtgttc 360
 ctgatgacgt gcaaaccccc cctatatatg ggscctgagt atatcaagta cttcaatgat 420
 aaaaccattg atgaggaaact agaacgggac aagaggggtca cttggattgt ggagttcttt 480
 gccaattggg ctaatgactg ccaatcattt gcccctatct atgctgacct ctcccttaaa 540
 tacaactgta cagggtctaaa ttttggaag gtggatgttg gacgctatac tgatgttagt 600
 acgcggtaca aagtgagcac atcacccctc accaagcaac tccctaccct gatcctgttc 660
 caaggtggga aggaggcaat gcggcggcca cagattgaca agaaaggacg ggctgtctca 720
 tggaccttct ctgaggagaa tgtgatccga gaatttaact taaatgagct ataccagcgg 780
 gccaaagaaac tatcaaaggc tggagacaat atccctgagg agcagcctgt ggcttcaacc 840
 cccaccacag tgtcagatgg ggaaaacaag aaggataaat aagatcctca ctttggcagt 900
 gcttctctct ctgtcaattc caggctcttt ccataaccac aagcctgagg ctgcagcytt 960
 ttatttatgt tttccctttg gctgtgactg ggtggggcag catgcagctt ctgattttta 1020
 agaggcatct aggaattgt caggcaccct acaggaaggc ctgccatgct gtggccaact 1080
 gtttcactgg agcaagaaag agatctcata ggacggaggg ggaaatgggt tccctccaag 1140
 cttgggtyag tgtgttaact gcttatcagc tattcagaca tctccatggt ttctccatga 1200
 aactctgtgg tttcatcatt ccttcttagt tgacctgcac agcttggtta gacctagatt 1260
 taaccctaag gtaagatgct ggggtataga acgctaagaa ttttcccca aggactcttg 1320
 cttccttaag ccttctggc ttcgtttatg gtcttcatta aaagtataag cctaactttg 1380
 tcgctagtcc taaggagaaa cctttaacca caaagttttt atcattgaag acaatattga 1440
 acaacccctt attttgtggg gattgagaag ggggtgaatag aggcttgaga ctttcttttg 1500
 tgtggtagga cttggaggag aaatcccctg gactttcact aaccctctga catactcccc 1560
 acaccagtt gatggcttcc cgtaataaaa agattgggat ttccttttga aaaaaaaaaa 1620
 aaaaaggggg ccgctctagn ggtncangc tt 1652

<210> 43
 <211> 1473
 <212> DNA

<213> Homo sapiens

<400> 43

ggcaccgagcc	gcggggctgt	cacctccgcc	tctgctcccc	gacccggcca	tgcgcggcct	60
cgggctctgg	ctgctgggcg	cgatgatgct	gcctgcgatt	gccccagcc	ggccctgggc	120
cctcatggag	cagtatgagg	tctgtttgcc	gtggcgtctg	ccaggccccc	gagtccgccc	180
agctctgccc	tcccacttgg	gcctgcaccc	agagagggtg	agctacgtcc	ttggggccac	240
agggcacaa	ttcacccctc	acctgcggaa	gaacaggggc	ctgctgggct	ccggctacac	300
agagacctat	acggctgcca	atggctccga	ggtgacggag	cagcctcgcg	ggcaggacca	360
ctgctttctac	cagggccact	tagagggtac	cggactcagc	cgccagcctc	agcacctgtg	420
ccggcctcag	gggtttcttc	caggtggggg	cagacctgca	cctgatcgag	cccctggatg	480
aaggtggcga	gggaggacgg	cacgccgtgt	accaggctga	gcacctgctg	cagacggccg	540
ggacctgcgg	ggtcagcgac	gacagcctgg	gcagcctcct	gggaccccg	acggcagccg	600
tcttcaggcc	tcggcccggg	gactctctgc	catcccagag	gacccgctac	gtggagctgt	660
atgtggctcg	ggacaatgca	gagttccaga	tgctggggag	cgaaagcagc	gtgcgtcatc	720
gggtgctgga	ggtggtgaat	cacgtggaca	agctatatca	gaaactcaac	ttccgtgtgg	780
tcttggtggg	cctggagatt	tggaatagtc	aggacagggt	ccacgtcagc	cccgaaccca	840
gtgtcacact	ggagaacctc	ctgacctggc	aggcacggca	acggacacgg	cggcacctgc	900
atgacaacgt	acagctcatc	acgggtgtcg	acttcaccgg	gactactgtg	gggtttgcca	960
gggtgtccgc	catgtgtctc	cacagctcag	gggctgtgaa	ccaggaccac	agcaagaacc	1020
ccgtgggcgt	ggcctgcacc	atggcccattg	agatgggcca	caacctgggc	atggaccatg	1080
atgagaacgt	ccagggtctg	cgctgccagg	aaacgcttcg	aggccggccg	ctgcatcatg	1140
gcaaggccag	cattggctcc	cagtttcccc	aggatgttca	gtgactgcag	ccaggcctac	1200
ctgggagact	ttttggagcg	gccgcagtcg	gtgtgcctcg	ccaacgcccc	tgacctcagc	1260
cacctggtgg	gcgcccccg	gtgtgggaac	ctgtttgtgg	agcgtgggga	gcagtgcgac	1320
tgcggccccc	ccgaggactg	ccggaaccgc	tgctgcaact	ctaccacctg	ccagctggct	1380
gagggggccc	agtgtgcgca	cggtacctgc	tgccaggagt	gcaaggtgaa	gccggctggt	1440
gagctgtgcc	gtcccaagaa	ggacatgtgt	gac			1473

<210> 44

<211> 772

<212> DNA

<213> Homo sapiens

<400> 44

tcggttttctc	tctttgcagg	agcaccggca	gcaccagtgt	gtgaggggag	caggcagcgg	60
tcctagccag	ttccttgatc	ctgccagacc	acccagcccc	tggcacagag	ctgctccaca	120
ggcaccatga	ggatcatgct	gctattcaca	gccatcctgg	ccttcagcct	agctcagagc	180
tttggggctg	tctgtaagga	gccacaggag	gaggtggttc	ctggcggggg	ccgcagcaag	240
aggggatccag	atctctacca	gctgctccag	agactcttca	aaagccactc	atctctggag	300
ggattgctca	aagccctgag	ccaggytagc	acagatccta	aggaatcaac	atctcccag	360
aaacgtgaca	tgcattgact	ctttgtggga	yttatgggca	agaggagcgt	ccagccagac	420
tctcctacgg	atgtgaatca	agagaacgtc	cccagctttg	gcacccctca	gtatcccccg	480
agagcagaat	aggtactcca	cttccggact	cctggactgc	attaggaaga	cctctttccc	540
tgccccaatc	cccagggtgc	cacgtcctct	ttaccctttc	tcttcctctg	tcttgtaaca	600
ttcttggtgt	ttgactcctt	ctccatcttt	tctacctgac	cctggtgtgg	aaactgcata	660
gtgaatatcc	ccaaccccaa	tgggcattga	ctgtagaata	ccctagagtt	cctgtagtgt	720
cctacattaa	aaatataatg	tctctctcta	ttcctcaaca	aataaaggat	tt	772

<210> 45

<211> 403

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (15)
 <223> n equals a,t,g, or c

<400> 45
 aattcggcac gagcntggaa tgggaggcta cggaagagat ggaatggata atcagggagg 60
 ctatggwtca kttggaagaw tgggaatggg gaacaattac agtggaggat atgggtactcc 120
 tgatggtttg ggtggttatg gccgtgggtg tggaggcagt ggaggttact atggggcaagg 180
 cggcatgagt ggaggtggat ggcgtgggat gtactgaaag caaaaacacc aacatacaag 240
 tcttgacaac agcatctggt ctactagact ttcttacaga ttttaatttct tttgtatttt 300
 aagaacttta taatgactga aggaatgtgt tttcaaaata ttatttggta aagcaacaga 360
 ttgtgatggg gaaaaaaaaa aaaaaaagaa ttcaaaaagc ttc 403

<210> 46
 <211> 928
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (49)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (78)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (148)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (163)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (532)
 <223> n equals a,t,g, or c

<400> 46
 cctctcgcta attaacccaa ttggccaaaa gggggatggt gcctgcaang ccaattaaat 60
 ttgggtaaac ccccaggntt ttccccaaagt ccacgacgtt gtaaaaaacg acggcccaat 120
 tgaaattgtw aaaaacsaac ycactaanag ggccaawtgg gtnacsgggc cccccccga 180
 rttttttttt tttttttttt ctgrttgwca atgagratat ttattgaggg ttatttgagt 240
 gcagggagaa gggctkgatg mcttgggrtg ggaggagaga ccctccctct gggatcctgc 300
 agctcyagkc tcccgtgggt gggggtkagr gttgrgaacc tatgaacatt ctgtagggggc 360
 cactgtcttc tccacgggtgc tcccttcctg cgtgacctgg cagctgtagc ttctgtggga 420
 cttccactgc tcrggcgctca ggctcaggta gctgctggcc gcgtacttgt tggtgctytg 480
 tttggagggg ktggtgggtc ccaactccgc cttgacgggg ctgcyatctg cnttccaggc 540
 cactgtcacr gctcccggtt agaagtcact katsagacac acyagtgtgg ccttggtggc 600
 ttgragctcc tcagaggagg gcgggaacag agtgacmgwg gggkyrgcct tgggctgacc 660
 taggacgggtg accttggtcc cagttccgaa gacmccatga ttaccactgc tgtctgttga 720
 gtaacagtag tagtcagccg catcctccac ctgggccccca ctgatagtca aggtggccac 780
 tgtccctgar ctggagccar agaatctcts agggatccgg agggtcgttt gttgtcctca 840

```
tagatgacca ggcacagggg cctggcctga cttctgktgg taccaatawa catattttctt 900
cggcaatgca tctccaggag caggtgat 928
```

```
<210> 47
<211> 885
<212> DNA
<213> Homo sapiens
```

```
<400> 47
ggcacgaggg aatctgcacc atgccctggg ttctgctcct cctgaccctc ctcaactcact 60
ctgcagtgtc agtgggtccag gcagggtctga ctcagccccc ctcggtgtcc aaggacttga 120
gacagaccgc cacactcacc tgcaccggga acaacaacaa tggtggcgac caaggagcag 180
cttggctgca gcagcaccag ggccaccctc ccaaactcct gtcctacagg aataataacc 240
ggccctcagg gatctcagag agattatctg catccaggtc aggagccaca tcctccctga 300
ccattactgg actccagcct gaggacgagg ctgactatta ctgcgcagca tatgacagca 360
gcctcgcagt ttggatgttc ggccgagggg ccaagctgac cgtcctaggt cagcccaagg 420
ctgccccctc ggtcactctg ttcccaccct cctctgagga gcttcaagcc aacaaggcca 480
cactgggtgtg tctcataagt gacttctacc cgggagccgt gacagtggcc tggaaggcag 540
atagcagccc cgtcaaggcg ggagtggaga ccaccacacc ctccaaacaa agcaacaaca 600
agtacgcggc cagcagctac ctgagcctga cgctgagca gtggaagtcc cacaaaagct 660
acagctgcca ggtcacgcat gaaggagca cgtggagaa gacagtggcc cctacagaat 720
gttcataggt tctcatccct cccccccac cagggagac tagagctgca ggatcccagg 780
ggaggggtct ctctccac cccaaggcat caagccctc tcctgcact caataaaccc 840
tcaataaata ttctcattgt caatcagaaa aaaaaaaaaa aaaaa 885
```

```
<210> 48
<211> 2315
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (2264)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (2312)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (2315)
<223> n equals a,t,g, or c
```

```
<400> 48
tttttttttt ttgatttttt caaaattaac ttttttatta atttaaaaat ccagaaatac 60
agtgactaca taaataagta ccataattag gtacatgtcc tgtgagaaca gtgaaaggg 120
aatactgtta tgttactctt acttgtttac atgagttaac tagaaaatgg ctacaactgc 180
taaagtatgc ttatggtctt tgttgttcca agtgtttatg atacaaataa atacacaaga 240
agaaccacat ccattcttct ctactaacta caggcagctt ggctctttta ccctatgtcc 300
tattctctac acaacaccaa acactggagg gtttctactt tgacttaaca cagctcccca 360
gctcctgctt cccacagcat tttgcaaagg tgtgtcccag cacctggagg caggagtata 420
tctagggaaa ctctctgcgt gttctcttaa ggctaagctt tcagagaaca cctgggtggg 480
aaggctttgg gatgaatcat ccagaaggag aaacacctct ttgccttagg atctagttac 540
tagtctccac attatggaat cactgccacc tctgggacgg agggagcagc cgcataacac 600
```

cttccccct	ttaccacaca	cacacacaca	cacacacaca	cacacacaaa	ggagcaaatt	660
atgctgtgca	tggcgtgaat	aattgactgc	atttgagttt	ggagtttttag	ggcactgttg	720
acttaagcaa	aataagcctg	cagtcagct	gcagcttgag	ttttcttgct	ttaccctatc	780
caatactgtc	tgtctgcct	aacagtggcc	cttttcagat	ctctccaggt	acaaaacctt	840
gactaaatct	tcaagctctg	ttctgcatac	acgacttgaa	cacatctggc	tgatctgagc	900
ttctccttgc	gtgaagatct	tccactggct	cagggttggt	ctggtcacca	gcttgaagtg	960
aggaagctcc	tcaaaccatcc	tcttgagat	cttctcaata	tggagtgct	ggagaatgcc	1020
ctttcgaata	gtccaaacgt	ggacctctac	ctgaggtggt	ctctcagctc	ccagtgtctat	1080
ttttctgggt	gtctcccat	cctccatgaa	tacagactca	tacacaggca	tcgtttcttc	1140
cccgcagaag	tagcctttat	tgtcaaagct	ttggcctgga	agttcttctg	gacacacctt	1200
gcagcathtt	cgtctathtt	tttgaggata	cttgcaaggg	tatcgattgg	ggcagtggtat	1260
tttcttacac	tcttgcttgg	tgacattaca	agtacatagc	acacactcca	caatgccaaa	1320
tggccggagg	tttgggtgcc	aggactcgcc	atgagaatag	gtctttccat	tggaaacaca	1380
cacttgtooa	tgcttggtt	tgttattgat	gacaatttgc	acaatgggtc	ctgatgcttg	1440
ctgggaatcc	ataagagctc	cccgttgact	tctggcccca	ggaaagcggg	acagacctcc	1500
agcctgtcgg	cttgggtggag	gatcatagt	agagcgttgg	taagaatgtc	ttgcttctct	1560
gttggcagg	tgccggaaga	tatcaccatc	agaatgttcc	catgacagtt	ctccatctcc	1620
tctgcatacc	cggcagcagg	aatctggaac	agagactggg	aaggcacagg	ttaatttggg	1680
gcaagtcttg	agaccacaat	acacgtttcc	ctccgaacag	ctgcactggg	tgcatgtgatt	1740
gggttgccga	ttctgaaaga	gcccttcagc	tacgaacagc	tctccatgtt	ggtaagttgt	1800
cccattgtac	tgcgaagact	tgctggtcac	cttattgttc	actgggggta	aggagtcttc	1860
tgggcagcga	gggcagcaca	gatgaggaat	atgcacagga	gaaaggcaat	gaacatttgg	1920
acatctgact	cggctgcaaa	gcacattccc	attctctgag	cagatgcagt	tcacgcagta	1980
aaccaaccca	taaggttcca	ggtaaggatg	ccatctctca	cccactctgt	acttcttgtc	2040
ttgaaacatg	caatatgtct	ctgaatgttt	tacttgctct	gtttkgctc	cttctagcaa	2100
aagaaagctc	gtgccgaatt	cctgcagccc	ggggggatcc	actagttcta	gagcggccgc	2160
caccgcgggtg	ggagctccag	cttttggttc	cctttagtga	ggggttaatt	tcgagcttgg	2220
cggtaatcat	gggtcatagc	ttgtttcctg	gtgttgaaat	tggntatccc	gtccacaaat	2280
tccacaacaa	caatacgagc	cgggaagcata	angtn			2315

<210> 49

<211> 3175

<212> DNA

<213> Homo sapiens

<400> 49

ttttttttgt	caatcacttt	aatagatgtc	cataggtagt	tcatatgaat	gcttaagtta	60
caaaatttagc	tgccatggtc	caaatgtatg	ggacttttagg	aaagcttttc	ttactcaaaa	120
gataactaag	actatcaact	ttgatttcta	aaatgtaatt	ttaaaggtttg	taaaacaagg	180
ccactactat	aattatataa	tattaaagta	attaagtttt	atgttagtta	ttttaataac	240
aacttcatga	actgttaaaa	atattacatt	tgcactctctc	agtttacata	tttctgtatt	300
aacttggaga	aaaacccatg	tgaaaagtgt	ccatgcagtt	acaaaggcag	cagcacatgc	360
tgttttcaca	gcaacttggt	attgcctcag	aacaggcctg	cactaaagca	tcaacaaaaa	420
atacccacca	ccccactccc	accagaaaac	ccaaccctta	cccatccccg	gcaaaaatta	480
cctggtacaa	gcaatgacct	aaaaatgctt	tcttggttaag	aagcattttat	aaaaatgcaga	540
gatctgaaca	agctaagtgc	tcgtgcagat	acatgggcct	ctcctccaag	agttgggtcc	600
gcaagagggtg	gaaagaactc	tcaatagtgt	aggaaagctc	attttcaaaa	gtatacttac	660
acatatccat	ggccatttct	ttgaaagaac	ataccagcc	tcaactgttg	aaaagataaa	720
agcagaggga	gaagcaacgg	cacacagcca	taatataagag	aacagagctt	ctccatgaac	780
atccaccagg	ctgcagcaac	caagaaggaa	aaaacatttg	tgatttcaca	cagaccaatg	840
atcttaccta	ggtgaagcat	taatttttca	tgcatttggt	actcaagaaa	ataaacatac	900
aaccacttaa	aatacagcat	tcacgttgct	actggttcgt	ggtatcaggt	aaggaaaaaa	960
tgatgtctct	gtccctagaa	ttttccatgt	acatgtcagt	atcctaattgc	ctacagactt	1020
cctattaatt	tgtttatcag	catctcccac	ctaaaaacat	acactacatt	atgttctggg	1080
ttcttgaaat	agaaaacatc	aagcaatggt	tattgtgcaa	ttccaatcat	tatttgcaga	1140
atcttggttt	agagtcagtc	tttatagcca	tttcaactgc	ttggttttaa	caaaaagcaa	1200
caatctgggt	atctacctat	aaattttcayg	gtattttctt	aaacactgaa	gtactaaaag	1260

cactgatgat	ttgtattata	atTTTTTaaaa	tattTaaaaac	ctacacagat	ttcatagatc	1320
attccttttta	taaaataatc	aaaataatTT	gattatctgg	aaaaaaaaaT	tcttgaaaca	1380
gagccctttc	caggTatctt	caatctctgt	aaaaccccaa	accccaaaca	gagtagatga	1440
tgaaataaagg	attttctcagt	tgcccaagac	tgtctgaaat	ttaaaggTtg	gaaatggact	1500
ggcgTttttc	atgtttcctg	tgaattcaga	gcttacaggt	ggcatcagaa	ctcaaattctc	1560
tgggatgggt	ttacatggct	ttcactttga	tttgtttcat	tttcatttgc	ttctttttcca	1620
acttcttttk	ctcacgcctc	aatgcagcct	cctccagcct	gcgctgtttc	tcaggatctt	1680
cctcatteat	gattcgctcc	ttctctgtct	ttttttttctc	ctcccgccga	gactgtgctg	1740
cttcctgtct	ttgcacatgt	gtcagtttca	agaagttctc	ttctactcgg	gcacggttct	1800
tatctgcttt	ttgtttgcct	tctctgttga	gtcggaaactt	tttggcttta	tcaatagaat	1860
aaatcaccat	gttcatcagg	ggtagcagtg	cctccatatac	ctttgggttaa	gtgttacctg	1920
agccaggcac	attaaatgta	aacaacagtg	tcctcttagt	gtcaggtagc	tttaaaggct	1980
gaccttccct	ttgcataatt	tttggaccag	agaactgggtc	tgaaaaatga	acagattcaa	2040
tcttgTcagc	atagtgtgta	agaaaagtga	ccatctttgt	atccatcatt	ccgtctgtga	2100
cttctcccat	ctctgacagg	atggccaaag	agtccggcag	tccatacttt	gctccagact	2160
taggtttatc	actacaaaac	tactcaaat	cctgcatctc	tttctgtagt	cgcaccaagg	2220
ctttccgtgt	gccaacagca	aatacgtagg	tatccatgtc	ttcatcattc	atggttactt	2280
ttatttgTcac	ttgatcactc	actggcctca	tcacccgggc	caggacattc	agtaagtctt	2340
gtctcttgag	gaacctcagc	tggataagca	tgccctcaca	gcacactcga	ccagaacacc	2400
acaggTtata	gatgtgctca	ttctcctggT	tcaactttcc	tgtgcttTgtg	gcttctttgt	2460
tagttccatc	atccccact	aaagTaaagt	tgtctctcaa	aagctcccta	tgagtgttaa	2520
accaggcctg	tgcaaggcga	ctgtttttat	tcttcccaat	gatgtaatc	atgatataag	2580
caagcagacc	agtcaccatc	aaaattttcta	gataataact	ctcccagctg	ttctggaggt	2640
gtgcaggaac	atcaacaatc	gttattgggt	ctttattttt	gctagaagaa	gtatctgggt	2700
tgtcttcata	accttcaaT	tcttcatcat	catatggTtc	actctcagta	tctccctcct	2760
gggtatctgc	atcttcaaaa	tctccttctt	ggttttcatc	ctgcccttcc	aactccacag	2820
tggTctcatc	ttcatcatct	tcagtgatta	tgaccggttg	aggagattca	gtaacagagt	2880
cttccatgac	atcctcaaat	tcagcgaagt	cattatcatc	atactctact	atgtcctcct	2940
catcctcaaa	atcatcaaac	ttggcttcag	agacactccc	aaacaccaga	aggacaacac	3000
agaaaTgtg	gaaggctttc	attgcacctt	gagaaaaaaa	gctgtggccg	aagccgaaac	3060
ccggcccagc	gccttgcgTc	cgacaccctt	gcccggcctg	ctctcggcct	ggccgcgcgc	3120
tccgcgatcg	cagcggtttt	actgcccccg	atgcctctag	gacgcagcca	gaacc	3175

<210> 50

<211> 783

<212> DNA

<213> Homo sapiens

<400> 50

ggcacgcgga	aaggctggcc	tctcttcamc	atgggTtctt	ctggactttt	gagcctcctg	60
gtgctattcg	tcctcttagc	gaatgtccag	ggacctggTc	tgactgattg	gttattttccc	120
aggagatgtc	ccaaaatcag	agaagaatgt	gaattccaag	aaagggatgt	gtgtacaaag	180
gacagacaat	gccaggacaa	caagaagtgt	tgtgtcttca	gctgcggaaa	aaaatgttta	240
gatctcaaac	aagatgtatg	cgaaatgcc	aaagaaactg	gccccTgcct	ggcttatttt	300
cttcattggT	ggtatgacaa	gaaagataat	acttgctcca	tgtttgtcta	tggtggctgc	360
caggggaaac	aataacaact	tccaatccaa	agccaactgc	ctgaacacct	gcaagaataa	420
acgctttccc	tgattggata	aggatgcact	ggaagaactg	ccagaatgtg	gctcatgctc	480
tgagtactgt	tcctgtacct	gactgatgct	ccagactggc	ttccagtTtc	actctcagca	540
ttccaagatc	ttagcccttc	ccagaacaga	acgcttgcat	ctacctcctc	ttcctccatc	600
tttggctctt	ttgatgcaca	atatccatcc	gttttgattt	catctttatg	ttccctttat	660
ctccaacttc	tagaactccc	agttttatacc	tgtgtcactc	tcaatttttt	ccagTaaagt	720
acttgatgtw	gaaaaaaaaa	aaaaaaaaaa	aaaaccggca	cgaggggggg	cccgttacct	780
aat						783

<210> 51

<211> 3030

<212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (60)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (2388)
 <223> n equals a,t,g, or c

<400> 51

ctctaagaac	ctagtggatc	cccccggcct	gcaggaattc	gggcacggag	gggagacttn	60
ctgtgggctaa	gggagggcgg	gaagggccct	ctgtggggct	gccatttttg	ctgggaccta	120
aatgcagtaa	aggagcagct	acgggaatat	agagagtggg	gcttccaggc	agagaagcct	180
gcagtgcaaa	ggtctgcaga	caacgacctg	ggcgtcttca	aggacacaa	ggaatcatat	240
tgccagaaca	cattgtacag	gtagccaggt	gtcggctctcc	agcctgagaa	ctctggctgt	300
tgttccttgt	gtcgtcccat	attcctgcct	ggcctgcgat	ggacatcagc	aagggcctcc	360
caggcatgca	gggagggcctc	cacatatgga	tctctgagaa	ccggaagatg	gtgccggtac	420
ccgagggggc	ttacgggaac	tttttcgagg	aacactgcta	tgtcatcctc	cacgtcccc	480
agagcccgaa	ggycacgcag	ggggcgctcca	gcgacctgca	ctactgggtc	gggaagcagg	540
cgggtgcgga	agcgcagggc	gctgcggagg	ccttccagca	gcgcctacag	gacgagctgg	600
ggggccagac	cgtgctgcac	cgcgaggcgc	agggccacga	gtccgactgc	ttctgcagct	660
acttccgccc	gggaatcatc	tacaggaagg	gaggcctagc	atctgacctc	aagcatgtgg	720
agaccaactt	gttcaacatc	cagcgactgc	tgcacatcaa	agggaggaag	cacgtgtctg	780
ccactgaggt	ggagctctcc	tggaacagct	ttaataaggg	tgacatcttc	ctgctggacc	840
taggcaagat	gatgattcag	tggaatgggc	ccaagaccag	catttctgag	aaggctcggg	900
ggctggyctt	gacctacagc	ctccgggaca	gggaacgtgg	tgggtggtcgt	gcacagattg	960
gtgtggtgga	tgatgaggcc	aaagcccccg	acctcatgca	gatcatggag	gctgtgtctg	1020
gccgcagggt	gggcagmctg	cgtgycgcca	cgcccagcaa	ggatatcaac	cagctgcaga	1080
aggccaatgt	tgcctgttac	catgtctatg	agaagggcaa	agacctgggt	gtcctggagt	1140
tggcgacccc	ccactgacc	caggacctgc	tgcaggagga	ggacttctac	atcctggacc	1200
agggtggctt	caagatctat	gtgtggcagg	gacgcattgc	tagcctccag	gagagaaagg	1260
ctgccttcag	ccgggctgtg	ggcttcatcc	aggccaaggg	ctacccgacc	tacaccaacg	1320
tggaggtggt	gaacgacggc	gcccagctcg	ccgcgttcaa	gcagctcttc	cggacttggt	1380
ctgagaagcg	gcgaggaac	cagaagmtcg	gcgggaggga	taaatcgatt	catgtaaagc	1440
tggacgtggg	caagctgcac	acccagccta	agttagcggc	ccagctcagg	atgggtggacg	1500
acggctctgg	gaaggtggag	gtgtggtgca	tccaggactt	acacaggcag	cccgtggacc	1560
ccaagcgtca	tggacagctg	tgtgcaggca	actgtacctt	tgtgctctac	acataccaga	1620
ggctgggccc	tgtccagtac	atcctgtacc	tatggcaggg	ccaccaggcc	actgcggatg	1680
agattgaggc	cctgaacagc	aacgctgagg	aactagatgt	catgtatggt	ggcgtcctag	1740
tacaggagca	tgtgaccatg	ggcagcgagc	ccccccactt	cctcgccatc	ttccaggggc	1800
agctggtgat	cttccaggag	agagctgggc	accacggaaa	ggggcagtc	gcacccacca	1860
caaggctttt	ccaagtgc	ggcactgaca	gccacaacac	caggaccatg	gaggtgccag	1920
cccgtgcctc	atccctcaac	tccagtgc	tcttcttgc	ggtcacagcc	agcgtctgct	1980
acctctgggt	tgggaaaggg	ctgtaatggt	gatcagcgtg	agatggcacg	ggtggtgggtc	2040
actgtcattt	ccaggaagaa	tgaggaacacg	gtgctggagg	gtcaggagcc	tccccacttc	2100
tgggaggccc	tgggaggccg	gggcccccta	ccccagcaac	aagaggctcc	ctgaggaggt	2160
ccccagcttc	cagccacgac	tgtttgagt	ctccagccac	atgggctgcc	tggctcctgc	2220
agaagtgggg	ttcttcagcc	aggaggacct	ggacaagtat	gacatcatgt	tactggacac	2280
ctggcaggag	atcttcctgt	ggcttgggga	agctgcaagt	gagtgggaagg	aggcgggtggc	2340
ctggggccag	gagtacctga	agactcacc	agcaggagg	agcccggnc	cacccatcgt	2400
gctggtcaag	cagggscatg	agcctccac	cttcattgga	tggttcttca	cttgggaccc	2460
ctacaagtgg	actagccacc	catcccacaa	ggaagtgggt	gatggcagcc	cggcagcagc	2520
atcaaccatc	tctgagataa	cagcagaagt	caacaacttc	cggctatcca	gatggccggg	2580
caatggcagg	gcaggtgccg	tggccctgca	ggccctcaag	ggctccagg	acagctcaga	2640

```

gaatgatytg gtgcgaagcc ccaagtcggc tggcagcaga accagcagct ccgtcagcag 2700
caccagcgcc acgatcaacg ggggcctgcg ccgggaacaa ctgatgcacc aggctgttga 2760
ggacctgcca gagggcggtgg accctgcccc cagggagttc tatctctcag actctgactt 2820
ccaagatatc tttgggaaat ccaaggagga attctacagc atggccacgt ggaggcagcg 2880
gcaggagaaa aagcagctgg gcttcttctg aacccaagcc ctctcgactg cccctatccc 2940
ctggacccca acatacctac aatgctgggg aggcctgct tccactcccc tcagaggctt 3000
ttggtcatcc tctgcgtgtc agtaaaagca 3030

```

<210> 52

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 52

```

Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
  1             5             10             15

```

```

Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Leu Pro Leu
          20             25             30

```

```

Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro
  35             40             45

```

```

Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser
  50             55             60

```

<210> 53

<211> 243

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

```

Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly
  1             5             10             15

```

```

Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu
          20             25             30

```

```

Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala
  35             40             45

```

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val
 50 55 60
 Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala
 65 70 75 80
 Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln
 85 90 95
 Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu
 100 105 110
 Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu
 115 120 125
 Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala
 130 135 140
 Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr
 145 150 155 160
 Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr Thr
 165 170 175
 Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys
 180 185 190
 Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser
 195 200 205
 Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser
 210 215 220
 Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe
 225 230 235 240
 Leu Ser Val

<210> 54

<211> 65

<212> PRT

<213> Homo sapiens

<400> 54

Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
 1 5 10 15
 Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
 20 25 30
 Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp
 35 40 45
 Leu Ser His Leu Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu
 50 55 60

Phe
65

<210> 55
<211> 37
<212> PRT
<213> Homo sapiens

<400> 55
Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp
1 5 10 15
Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln
20 25 30
Pro Val Tyr Thr Val
35

<210> 56
<211> 317
<212> PRT
<213> Homo sapiens

<400> 56
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe
1 5 10 15
Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg
20 25 30
Arg Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg
35 40 45
Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met
50 55 60
Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp
65 70 75 80
Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn
85 90 95
Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys
100 105 110
Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu
115 120 125
Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu
130 135 140
Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr
145 150 155 160
Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys
165 170 175

Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr
 180 185 190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys
 195 200 205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg
 210 215 220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe
 225 230 235 240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu
 245 250 255

Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly
 260 265 270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val
 275 280 285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn
 290 295 300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr
 305 310 315

<210> 57

<211> 41

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys
 1 5 10 15

Gly Asn Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr
 20 25 30

Ser Ser Ser Glu Ile Thr Arg Ala Leu
 35 40

<210> 58

<211> 57

<212> PRT

<213> Homo sapiens

<400> 58

Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu
 1 5 10 15

Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser
 20 25 30

Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu

35

40

45

Cys Leu Gln Asp Glu Val Arg Ala Val
 50 55

<210> 59

<211> 52

<212> PRT

<213> Homo sapiens

<400> 59

Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn
 1 5 10 15

Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly
 20 25 30

Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu
 35 40 45

Gly Leu Gly Pro
 50

<210> 60

<211> 296

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (281)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60

Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg
 1 5 10 15

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu
 20 25 30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly
 35 40 45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg
 50 55 60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn
 65 70 75 80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe
 85 90 95

Ser Lys Val Ala Asn Thr Ile Leu Phe Arg Leu Asp Ile Arg Met
 100 105 110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys

115					120					125					
Pro	Pro	Leu	Tyr	Met	Gly	Pro	Glu	Tyr	Ile	Lys	Tyr	Phe	Asn	Asp	Lys
130						135					140				
Thr	Ile	Asp	Glu	Glu	Leu	Glu	Arg	Asp	Lys	Arg	Val	Thr	Trp	Ile	Val
145					150					155					160
Glu	Phe	Phe	Ala	Asn	Trp	Ser	Asn	Asp	Cys	Gln	Ser	Phe	Ala	Pro	Ile
				165					170					175	
Tyr	Ala	Asp	Leu	Ser	Leu	Lys	Tyr	Asn	Cys	Thr	Gly	Leu	Asn	Phe	Gly
			180					185					190		
Lys	Val	Asp	Val	Gly	Arg	Tyr	Thr	Asp	Val	Ser	Thr	Arg	Tyr	Lys	Val
		195					200					205			
Ser	Thr	Ser	Pro	Leu	Thr	Lys	Gln	Leu	Pro	Thr	Leu	Ile	Leu	Phe	Gln
	210						215					220			
Gly	Gly	Lys	Glu	Ala	Met	Arg	Arg	Pro	Gln	Ile	Asp	Lys	Lys	Gly	Arg
225					230					235					240
Ala	Val	Ser	Trp	Thr	Phe	Ser	Glu	Glu	Asn	Val	Ile	Arg	Glu	Phe	Asn
				245					250					255	
Leu	Asn	Glu	Leu	Tyr	Gln	Arg	Ala	Lys	Lys	Leu	Ser	Lys	Ala	Gly	Asp
		260						265					270		
Asn	Ile	Pro	Glu	Glu	Gln	Pro	Val	Xaa	Ser	Thr	Pro	Thr	Thr	Val	Ser
		275					280					285			
Asp	Gly	Glu	Asn	Lys	Lys	Asp	Lys								
	290					295									

<210> 61

<211> 100

<212> PRT

<213> Homo sapiens

<400> 61

Met	Arg	Ala	Phe	Arg	Lys	Asn	Lys	Thr	Leu	Gly	Tyr	Gly	Val	Pro	Met
1					5				10					15	

Leu	Leu	Leu	Ile	Val	Gly	Gly	Ser	Phe	Gly	Leu	Arg	Glu	Phe	Ser	Gln
			20					25					30		

Ile	Arg	Tyr	Asp	Ala	Val	Lys	Ser	Lys	Met	Asp	Pro	Glu	Leu	Glu	Lys
		35						40				45			

Lys	Leu	Lys	Glu	Asn	Lys	Ile	Ser	Leu	Glu	Ser	Glu	Tyr	Glu	Lys	Ile
	50					55					60				

Lys	Asp	Ser	Lys	Phe	Asp	Asp	Trp	Lys	Asn	Ile	Arg	Gly	Pro	Arg	Pro
65					70					75					80

Trp	Glu	Asp	Pro	Asp	Leu	Leu	Gln	Gly	Arg	Asn	Pro	Glu	Ser	Leu	Lys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85

90

95

Thr Lys Thr Thr
100

<210> 62

<211> 47

<212> PRT

<213> Homo sapiens

<400> 62

Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu
1 5 10 15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly
20 25 30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro
35 40 45

<210> 63

<211> 162

<212> PRT

<213> Homo sapiens

<400> 63

Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys
1 5 10 15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr
20 25 30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala
35 40 45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe
50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu
65 70 75 80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln
85 90 95

Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe
100 105 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser
115 120 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp
130 135 140

Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser
145 150 155 160

Val Tyr

<210> 64

<211> 335

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (297)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 64

Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
1 5 10 15

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
20 25 30

Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
35 40 45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
50 55 60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
65 70 75 80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
85 90 95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu
100 105 110

Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg
115 120 125

Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp
130 135 140

Glu Gly Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu
145 150 155 160

Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser
165 170 175

Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp
180 185 190

Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val
195 200 205

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser
130 135 140

Cys	Met	Glu	Phe	Lys	Asp	Arg	Glu	Met	Pro	Pro	Val	Asp	Pro	Asn	Ile
145					150					155					160
Leu	Asp	Tyr	Ile	Gln	Pro	Ser	Thr	Gln	Asp	Arg	Glu	His	Ser	Gly	Met
				165					170					175	
Asn	Val	Asn	Arg	Arg	Glu	Glu	Ser	Thr	His	Asp	His	Thr	Ile	Glu	Arg
			180					185					190		
Pro	Ala	Phe	Gly	Ile	Gln	Lys	Gly	Glu	Phe	Glu	His	Ser	Glu	Thr	Arg
		195					200					205			
Glu	Gly	Glu	Thr	Gln	Gly	Val	Ala	Phe	Glu	His	Glu	Ser	Pro	Ala	Asp
	210					215					220				
Phe	Gln	Asn	Ser	Gln	Ser	Pro	Val	Gln	Asp	Gln	Asp	Lys	Ser	Gln	Leu
225					230					235					240
Ser	Gly	Arg	Glu	Glu	Gln	Ser	Ser	Asp	Ala	Gly	Leu	Phe	Lys	Glu	Glu
				245					250					255	
Gly	Gly	Leu	Asp	Phe	Leu	Gly	Arg	Gln	Asp	Thr	Asp	Tyr	Arg	Ser	Met
		260						265					270		
Glu	Tyr	Arg	Asp	Val	Asp	His	Arg	Leu	Pro	Gly	Ser	Gln	Met	Phe	Gly
	275						280					285			
Tyr	Gly	Gln	Ser	Lys	Ser	Phe	Pro	Glu	Gly	Lys	Thr	Ala	Arg	Asp	Ala
	290					295					300				
Gln	Arg	Asp	Leu	Gln	Asp	Gln	Asp	Tyr	Arg	Thr	Gly	Pro	Ser	Glu	Glu
305					310					315					320
Lys	Pro	Ser	Arg	Leu	Ile	Arg	Leu	Ser	Gly	Val	Pro	Glu	Asp	Ala	Thr
				325					330					335	
Lys	Glu	Glu	Ile	Leu	Asn	Ala	Phe	Arg	Thr	Pro	Asp	Gly	Met	Pro	Val
			340					345					350		
Lys	Asn	Cys	Ser												
		355													

<210> 66

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 66

Met	Leu	Ser	Gln	Pro	Leu	Val	Gly	Ala	Gln	Arg	Arg	Arg	Arg	Ala	Val
1					5					10				15	

Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro
 20 25 30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp
 35 40 45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp
 50 55 60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly
 65 70 75 80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg
 85 90 95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly
 100 105 110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu
 115 120 125

<210> 67

<211> 77

<212> PRT

<213> Homo sapiens

<400> 67

Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly
 1 5 10 15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro
 20 25 30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg
 35 40 45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn
 50 55 60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
 65 70 75

<210> 68

<211> 121

<212> PRT

<213> Homo sapiens

<400> 68

Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
 1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
 20 25 30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
 35 40 45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
50 55 60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
65 70 75 80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln
85 90 95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu
115 120

<210> 69

<211> 26

<212> PRT

<213> Homo sapiens

<400> 69

Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr
1 5 10 15

Ala Met Gly Met Met Ala Leu Met Thr Glu
20 25

<210> 70

<211> 235

<212> PRT

<213> Homo sapiens

<400> 70

Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp
20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro
50 55 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu
65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr
85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp
100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

115	120	125
Leu Gly Gln Pro Lys Ala	Ala Pro Ser Val Thr	Leu Phe Pro Pro Ser
130	135	140
Ser Glu Glu Leu Gln Ala	Asn Lys Ala Thr	Leu Val Cys Leu Ile Ser
145	150	155 160
Asp Phe Tyr Pro Gly Ala	Val Thr Val Ala Trp	Lys Ala Asp Ser Ser
165	170	175
Pro Val Lys Ala Gly Val	Glu Thr Thr Thr	Pro Ser Lys Gln Ser Asn
180	185	190
Asn Lys Tyr Ala Ala Ser	Ser Tyr Leu Ser Leu Thr	Pro Glu Gln Trp
195	200	205
Lys Ser His Arg Ser Tyr	Ser Cys Gln Val Thr	His Glu Gly Ser Thr
210	215	220
Val Glu Lys Thr Val Ala	Pro Thr Glu Cys Ser	
225	230	235
<210> 71		
<211> 217		
<212> PRT		
<213> Homo sapiens		
<400> 71		
Met Asp Ser Gln Gln Ala	Ser Gly Thr Ile Val	Gln Ile Val Ile Asn
1	5	10 15
Asn Lys His Lys His Gly	Gln Val Cys Val Ser	Asn Gly Lys Thr Tyr
20	25	30
Ser His Gly Glu Ser Trp	His Pro Asn Leu Arg	Ala Phe Gly Ile Val
35	40	45
Glu Cys Val Leu Cys Thr	Cys Asn Val Thr Lys	Gln Glu Cys Lys Lys
50	55	60
Ile His Cys Pro Asn Arg	Tyr Pro Cys Lys Tyr	Pro Gln Lys Ile Asp
65	70	75 80
Gly Lys Cys Cys Lys Val	Cys Pro Glu Glu Leu	Pro Gly Gln Ser Phe
85	90	95
Asp Asn Lys Gly Tyr Phe	Cys Gly Glu Glu Thr	Met Pro Val Tyr Glu
100	105	110
Ser Val Phe Met Glu Asp	Gly Glu Thr Thr Arg	Lys Ile Ala Leu Glu
115	120	125
Thr Glu Arg Pro Pro Gln	Val Glu Val His Val	Trp Thr Ile Arg Lys
130	135	140
Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe		

```

<210> 72
<211> 492
<212> PRT
<213> Homo sapiens

<400> 72
Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser
 1          5          10
Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val
          20          25          30
Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp
          35          40          45
Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu
          50          55          60
Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly
          65          70          75          80
Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro
          85          90          95
Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser
          100          105          110
Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His
          115          120          125
Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr
          130          135          140
Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn
          145          150          155          160
Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu
          165          170          175
Ser Asn Phe Thr Leu Val Gly Asp Asp Gly Thr Asn Lys Glu Ala Thr
          180          185          190
Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp

```

195					200					205					
Cys	Ser	Gly	Arg	Val	Cys	Cys	Glu	Gly	Met	Leu	Ile	Gln	Leu	Arg	Phe
210					215					220					
Leu	Lys	Arg	Gln	Asp	Leu	Leu	Asn	Val	Leu	Ala	Arg	Met	Met	Arg	Pro
225					230					235					240
Val	Ser	Asp	Gln	Val	Gln	Ile	Lys	Val	Thr	Met	Asn	Asp	Glu	Asp	Met
				245					250					255	
Asp	Thr	Tyr	Val	Phe	Ala	Val	Gly	Thr	Arg	Lys	Ala	Leu	Val	Arg	Leu
			260					265						270	
Gln	Lys	Glu	Met	Gln	Asp	Leu	Ser	Glu	Phe	Cys	Ser	Asp	Lys	Pro	Lys
		275					280					285			
Ser	Gly	Ala	Lys	Tyr	Gly	Leu	Pro	Asp	Ser	Leu	Ala	Ile	Leu	Ser	Glu
		290					295					300			
Met	Gly	Glu	Val	Thr	Asp	Gly	Met	Met	Asp	Thr	Lys	Met	Val	His	Phe
305						310					315				320
Leu	Thr	His	Tyr	Ala	Asp	Lys	Ile	Glu	Ser	Val	His	Phe	Ser	Asp	Gln
				325					330					335	
Phe	Ser	Gly	Pro	Lys	Ile	Met	Gln	Glu	Gly	Gln	Pro	Leu	Lys	Leu	
			340					345				350			
Pro	Asp	Thr	Lys	Arg	Thr	Leu	Leu	Phe	Thr	Phe	Asn	Val	Pro	Gly	Ser
			355				360					365			
Gly	Asn	Thr	Tyr	Pro	Lys	Asp	Met	Glu	Ala	Leu	Leu	Pro	Leu	Met	Asn
		370					375					380			
Met	Val	Ile	Tyr	Ser	Ile	Asp	Lys	Ala	Lys	Lys	Phe	Arg	Leu	Asn	Arg
385						390					395				400
Glu	Gly	Lys	Gln	Lys	Ala	Asp	Lys	Asn	Arg	Ala	Arg	Val	Glu	Glu	Asn
				405					410					415	
Phe	Leu	Lys	Leu	Thr	His	Val	Gln	Arg	Gln	Glu	Ala	Ala	Gln	Ser	Arg
			420					425					430		
Arg	Glu	Glu	Lys	Lys	Arg	Ala	Glu	Lys	Glu	Arg	Ile	Met	Asn	Glu	Glu
		435					440					445			
Asp	Pro	Glu	Lys	Gln	Arg	Arg	Leu	Glu	Glu	Ala	Ala	Leu	Arg	Arg	Glu
		450					455					460			
Gln	Lys	Lys	Leu	Glu	Lys	Lys	Gln	Met	Lys	Met	Lys	Gln	Ile	Lys	Val
465						470					475				480
Lys	Ala	His	Val	Lys	Pro	Ser	Gln	Arg	Phe	Glu	Phe				
				485					490						

<211> 36
 <212> PRT
 <213> Homo sapiens

<400> 73

Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro
 1 5 10 15

Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His
 20 25 30

Cys Ala Arg Ala
 35

<210> 74
 <211> 74
 <212> PRT
 <213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 74

Met Ala Glu Leu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His
 1 5 10 15

Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His
 20 25 30

Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro
 35 40 45

Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser
 50 55 60

Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu
 65 70

<210> 75
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 75

Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu
 1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
 20 25 30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys
 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser
 50 55 60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro
 65 70 75 80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp
 85 90 95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
 100 105 110

Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys
 115 120 125

Asn Lys Arg Phe Pro
 130

<210> 76

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76

Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Arg Tyr
 1 5 10 15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro
 20 25 30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu
 35 40 45

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys
 50 55 60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln
 65 70 75 80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile
 85 90 95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser

100	105	110
Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu 115	120	125
Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser 130	135	140
Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly 145	150	155
Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu 165	170	175
Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met 180	185	190
Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp 195	200	205
Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg 210	215	220
Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile 225	230	235
Ile Ala Ala Val Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu 245	250	255
Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser 260	265	270
Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn 275	280	285
Asp Phe Lys His Thr Lys Ser Phe Ile Ile 290	295	

<210> 77

<211> 856

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (233)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (595)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (683)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 77

Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile
 1 5 10 15

Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr
 20 25 30

Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln
 35 40 45

Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val
 50 55 60

Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln
 65 70 75 80

Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu
 85 90 95

Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly
 100 105 110

Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu
 115 120 125

Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys
 130 135 140

His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys
 145 150 155 160

Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn
 165 170 175

Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr
 180 185 190

Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Gly Arg Ala Gln Ile Gly
 195 200 205

Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu
 210 215 220

Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser
 225 230 235 240

Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val

245										250					255				
Tyr	Glu	Lys	Gly	Lys	Asp	Leu	Val	Val	Leu	Glu	Leu	Ala	Thr	Pro	Pro				
			260					265					270						
Leu	Thr	Gln	Asp	Leu	Leu	Gln	Glu	Glu	Asp	Phe	Tyr	Ile	Leu	Asp	Gln				
		275					280					285							
Gly	Gly	Phe	Lys	Ile	Tyr	Val	Trp	Gln	Gly	Arg	Met	Ser	Ser	Leu	Gln				
	290					295					300								
Glu	Arg	Lys	Ala	Ala	Phe	Ser	Arg	Ala	Val	Gly	Phe	Ile	Gln	Ala	Lys				
305					310					315					320				
Gly	Tyr	Pro	Thr	Tyr	Thr	Asn	Val	Glu	Val	Val	Asn	Asp	Gly	Ala	Glu				
				325					330					335					
Ser	Ala	Ala	Phe	Lys	Gln	Leu	Phe	Arg	Thr	Trp	Ser	Glu	Lys	Arg	Arg				
			340					345					350						
Arg	Asn	Gln	Lys	Leu	Gly	Gly	Arg	Asp	Lys	Ser	Ile	His	Val	Lys	Leu				
		355					360					365							
Asp	Val	Gly	Lys	Leu	His	Thr	Gln	Pro	Lys	Leu	Ala	Ala	Gln	Leu	Arg				
	370					375					380								
Met	Val	Asp	Asp	Gly	Ser	Gly	Lys	Val	Glu	Val	Trp	Cys	Ile	Gln	Asp				
385					390					395					400				
Leu	His	Arg	Gln	Pro	Val	Asp	Pro	Lys	Arg	His	Gly	Gln	Leu	Cys	Ala				
			405					410						415					
Gly	Asn	Cys	Tyr	Leu	Val	Leu	Tyr	Thr	Tyr	Gln	Arg	Leu	Gly	Arg	Val				
			420					425					430						
Gln	Tyr	Ile	Leu	Tyr	Leu	Trp	Gln	Gly	His	Gln	Ala	Thr	Ala	Asp	Glu				
		435					440					445							
Ile	Glu	Ala	Leu	Asn	Ser	Asn	Ala	Glu	Glu	Leu	Asp	Val	Met	Tyr	Gly				
	450					455					460								
Gly	Val	Leu	Val	Gln	Glu	His	Val	Thr	Met	Gly	Ser	Glu	Pro	Pro	His				
465					470					475					480				
Phe	Leu	Ala	Ile	Phe	Gln	Gly	Gln	Leu	Val	Ile	Phe	Gln	Glu	Arg	Ala				
			485					490					495						
Gly	His	His	Gly	Lys	Gly	Gln	Ser	Ala	Ser	Thr	Thr	Arg	Leu	Phe	Gln				
			500					505					510						
Val	Gln	Gly	Thr	Asp	Ser	His	Asn	Thr	Arg	Thr	Met	Glu	Val	Pro	Ala				
		515					520					525							
Arg	Ala	Ser	Ser	Leu	Asn	Ser	Ser	Asp	Ile	Phe	Leu	Leu	Val	Thr	Ala				
	530					535					540								
Ser	Val	Cys	Tyr	Leu	Trp	Phe	Gly	Lys	Gly	Cys	Asn	Gly	Asp	Gln	Arg				
545					550					555					560				

Glu Met Ala Arg Val Val Val Thr Val Ile Ser Arg Lys Asn Glu Glu
 565 570 575
 Thr Val Leu Glu Gly Gln Glu Pro Pro His Phe Trp Glu Ala Leu Gly
 580 585 590
 Gly Arg Xaa Pro Tyr Pro Ser Asn Lys Arg Leu Pro Glu Glu Val Pro
 595 600 605
 Ser Phe Gln Pro Arg Leu Phe Glu Cys Ser Ser His Met Gly Cys Leu
 610 615 620
 Val Leu Ala Glu Val Gly Phe Phe Ser Gln Glu Asp Leu Asp Lys Tyr
 625 630 635 640
 Asp Ile Met Leu Leu Asp Thr Trp Gln Glu Ile Phe Leu Trp Leu Gly
 645 650 655
 Glu Ala Ala Ser Glu Trp Lys Glu Ala Val Ala Trp Gly Gln Glu Tyr
 660 665 670
 Leu Lys Thr His Pro Ala Gly Arg Ser Pro Xaa Thr Pro Ile Val Leu
 675 680 685
 Val Lys Gln Gly His Glu Pro Pro Thr Phe Ile Gly Trp Phe Phe Thr
 690 695 700
 Trp Asp Pro Tyr Lys Trp Thr Ser His Pro Ser His Lys Glu Val Val
 705 710 715 720
 Asp Gly Ser Pro Ala Ala Ala Ser Thr Ile Ser Glu Ile Thr Ala Glu
 725 730 735
 Val Asn Asn Phe Arg Leu Ser Arg Trp Pro Gly Asn Gly Arg Ala Gly
 740 745 750
 Ala Val Ala Leu Gln Ala Leu Lys Gly Ser Gln Asp Ser Ser Glu Asn
 755 760 765
 Asp Leu Val Arg Ser Pro Lys Ser Ala Gly Ser Arg Thr Ser Ser Ser
 770 775 780
 Val Ser Ser Thr Ser Ala Thr Ile Asn Gly Gly Leu Arg Arg Glu Gln
 785 790 795 800
 Leu Met His Gln Ala Val Glu Asp Leu Pro Glu Gly Val Asp Pro Ala
 805 810 815
 Arg Arg Glu Phe Tyr Leu Ser Asp Ser Asp Phe Gln Asp Ile Phe Gly
 820 825 830
 Lys Ser Lys Glu Glu Phe Tyr Ser Met Ala Thr Trp Arg Gln Arg Gln
 835 840 845
 Glu Lys Lys Gln Leu Gly Phe Phe
 850 855

<210> 78
 <211> 39
 <212> PRT
 <213> Homo sapiens

<400> 78
 Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr
 1 5 10 15
 Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp
 20 25 30
 Phe Asn Phe Leu Lys Ala Ile
 35

<210> 79
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 79
 Met Ala Leu Ser Val Leu Val Leu Leu Leu Leu Ala Val Leu Tyr Glu
 1 5 10 15
 Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp
 20 25 30

<210> 80
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 80
 Met Pro Ala Leu Val Leu Leu Pro Arg Val Leu Pro Pro Gly Gln Gly
 1 5 10 15
 Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg
 20 25 30
 Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His
 35 40 45

<210> 81
 <211> 39
 <212> PRT
 <213> Homo sapiens

<400> 81
 Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
 1 5 10 15
 Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
 20 25 30

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp
165 170 175

Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp
 180 185 190
 Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser
 195 200 205
 Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys
 210 215 220
 Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser
 225 230 235 240
 Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu
 245 250 255
 Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro
 260 265 270
 Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu
 275 280 285
 Asn Lys Lys Asp Lys
 290
 <210> 84
 <211> 143
 <212> PRT
 <213> Homo sapiens
 <400> 84
 Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
 1 5 10 15
 Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
 20 25 30
 Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
 35 40 45
 His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
 50 55 60
 Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
 65 70 75 80
 Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
 85 90 95
 Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
 100 105 110
 Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly
 115 120 125
 Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly
 130 135 140

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

<210> 85
 <211> 121
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (89)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 85
 Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
 1 5 10 15
 Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
 20 25 30
 Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
 35 40 45
 Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
 50 55 60
 Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
 65 70 75 80
 Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln
 85 90 95
 Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
 100 105 110
 Ile Leu Lys Tyr Pro Pro Arg Ala Glu
 115 120

<210> 86
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 86
 Met Val Leu Leu Met Val Trp Val Val Met Ala Val Val Val Glu Ala
 1 5 10 15
 Val Glu Val Thr Met Gly Lys Ala Ala
 20 25

<210> 87
 <211> 4

<400> 88																
Met	Pro	Trp	Val	Leu	Leu	Leu	Leu	Thr	Leu	Leu	Thr	His	Ser	Ala	Val	
1				5					10					15		
Ser	Val	Val	Gln	Ala	Gly	Leu	Thr	Gln	Pro	Pro	Ser	Val	Ser	Lys	Asp	
			20					25					30			
Leu	Arg	Gln	Thr	Ala	Thr	Leu	Thr	Cys	Thr	Gly	Asn	Asn	Asn	Asn	Val	
		35					40					45				
Gly	Asp	Gln	Gly	Ala	Ala	Trp	Leu	Gln	Gln	His	Gln	Gly	His	Pro	Pro	
	50					55					60					
Lys	Leu	Leu	Ser	Tyr	Arg	Asn	Asn	Asn	Arg	Pro	Ser	Gly	Ile	Ser	Glu	
65					70					75					80	
Arg	Leu	Ser	Ala	Ser	Arg	Ser	Gly	Ala	Thr	Ser	Ser	Leu	Thr	Ile	Thr	
				85					90					95		
Gly	Leu	Gln	Pro	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ala	Ala	Tyr	Asp	
			100					105					110			
Ser	Ser	Leu	Ala	Val	Trp	Met	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	
		115					120					125				
Leu	Gly	Gln	Pro	Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro	Pro	Ser	
	130					135					140					
Ser	Glu	Glu	Leu	Gln	Ala	Asn	Lys	Ala	Thr	Leu	Val	Cys	Leu	Ile	Ser	
145					150					155					160	
Asp	Phe	Tyr	Pro	Gly	Ala	Val	Thr	Val	Ala	Trp	Lys	Ala	Asp	Ser	Ser	
				165					170					175		
Pro	Val	Lys	Ala	Gly	Val	Glu	Thr	Thr	Thr	Pro	Ser	Lys	Gln	Ser	Asn	
			180					185					190			
Asn	Lys	Tyr	Ala	Ala	Ser	Ser	Tyr	Leu	Ser	Leu	Thr	Pro	Glu	Gln	Trp	
		195					200					205				
Lys	Ser	His	Lys	Ser	Tyr	Ser	Cys	Gln	Val	Thr	His	Glu	Gly	Ser	Thr	
	210					215					220					
Val	Glu	Lys	Thr	Val	Ala	Pro	Thr	Glu	Cys	Ser						
225					230					235						

<210> 89
 <211> 87
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (11)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (86)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 89
 Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys
 1 5 10 15
 Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu
 20 25 30
 Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser
 35 40 45
 Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe
 50 55 60
 Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn
 65 70 75 80
 Thr Ser Arg Lys His Xaa Val
 85

<210> 90
 <211> 106
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 90
 Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu
 1 5 10 15
 Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro
 20 25 30
 Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Leu Cys
 35 40 45
 Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His

50

55

60

Met Cys Gln Phe Gln Glu Val Leu Phe Tyr Ser Gly Thr Val Leu Ile
65 70 75 80

Cys Phe Leu Phe Ala Phe Ser Val Glu Ser Glu Leu Phe Gly Phe Ile
85 90 95

Asn Arg Ile Asn His His Val His Gln Gly
100 105

<210> 91

<211> 59

<212> PRT

<213> Homo sapiens

<400> 91

Met Tyr Ala Lys Cys Gln Lys Lys Leu Ala Pro Ala Trp Leu Ile Phe
1 5 10 15

Phe Ile Gly Gly Met Thr Arg Lys Ile Ile Leu Ala Pro Cys Leu Ser
20 25 30

Met Val Ala Ala Arg Gly Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn
35 40 45

Cys Leu Asn Thr Cys Lys Asn Lys Arg Phe Pro
50 55

<210> 92

<211> 32

<212> PRT

<213> Homo sapiens

<400> 92

Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe
1 5 10 15

Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Leu
20 25 30

<210> 93

<211> 178

<212> PRT

<213> Homo sapiens

<400> 93

Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile
1 5 10 15

Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro
20 25 30

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys
 35 40 45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly
 50 55 60

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys
 65 70 75 80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly
 85 90 95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu
 100 105 110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val
 115 120 125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly
 130 135 140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu
 145 150 155 160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys
 165 170 175

Leu Val

<210> 94
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 94
 Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met
 1 5 10 15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val
 20 25 30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr
 35 40 45

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr
 50 55 60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly
 65 70 75 80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu
 85 90 95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp
 100 105 110

Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu
 115 120 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg
 130 135 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr
 145 150 155 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met
 165 170 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe
 180 185 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln
 195 200 205

Arg Ala Lys Lys Leu Ser Lys Ala
 210 215

<210> 95

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95

Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe
 1 5 10 15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr
 20 25 30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu
 35 40 45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val
 50 55 60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro
 65 70 75 80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala
 85 90 95

Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys
 100 105 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr
 115 120 125

Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp
 130 135 140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro
 145 150 155 160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met
 165 170 175

Pro Gly Gly Ser Glu Ala Ala Ala Gly Leu Gln Leu Gln Cys Ser His
 180 185 190

Ser Lys Met Pro
 195

<210> 96

<211> 255

<212> PRT

<213> Homo sapiens

<400> 96

Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro
 1 5 10 15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg
 20 25 30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His
 35 40 45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile
 50 55 60

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met
 65 70 75 80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg
 85 90 95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys
 100 105 110

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro
 115 120 125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln
 130 135 140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg
 145 150 155 160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala
 165 170 175

Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala
 180 185 190

Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln
195 200 205

Ser Asp Leu Ala Ser Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr
210 215 220

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile
225 230 235 240

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val
245 250 255

<210> 97

<211> 137

<212> PRT

<213> Homo sapiens

<400> 97

Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly
1 5 10 15

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu
20 25 30

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser
35 40 45

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met
50 55 60

Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met
65 70 75 80

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe
85 90 95

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile
100 105 110

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu
115 120 125

Pro Pro Asn Phe Pro Tyr Arg Asp Asp
130 135

<210> 98

<211> 87

<212> PRT

<213> Homo sapiens

<400> 98

Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val
1 5 10 15

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr
20 25 30

Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn
 35 40 45
 Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu
 50 55 60
 Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro
 65 70 75 80
 Pro Pro Pro Tyr Val Ser Ala
 85

<210> 99
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 99
 Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
 1 5 10 15
 Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
 20 25 30
 His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
 35 40 45
 Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
 50 55 60
 Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
 65 70 75 80
 Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
 85 90 95
 Gly

<210> 100
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 100
 Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe
 1 5 10 15
 Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Glu Gly
 20 25 30
 Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln
 35 40 45
 Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu

50	55	60
Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp Ser Leu		
65	70	75 80
Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val Asp Asn		
	85	90 95
Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His Arg Val		
	100	105 110
Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu Asn Phe		
	115	120 125
Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp Arg Phe		
	130	135 140
His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu Thr Trp		
	145	150 155 160
Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val Gln Leu		
	165	170 175
Ile Thr Gly Val Asp Phe Thr Gly Thr Thr Val Gly Phe Ala Arg Val		
	180	185 190
Ser Ala Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp His Ser		
	195	200 205
Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu Met Gly His		
	210	215 220
Asn Leu Gly Met Asp His Asp Glu Asn Val Gln Gly Cys Arg Cys Gln		
	225	230 235 240

<210> 101
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 101
 Phe Glu Ala Gly Arg Cys Ile Met Ala Arg Pro Ala Leu Ala Pro Ser
 1 5 10 15
 Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe
 20 25 30
 Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser
 35 40 45
 His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly
 50 55 60
 Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys

65 70 75 80
 Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly
 85 90 95
 Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg
 100 105 110
 Pro Lys Lys Asp Met Cys
 115

 <210> 102
 <211> 471
 <212> PRT
 <213> Homo sapiens

 <400> 102
 Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro
 1 5 10 15
 Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe
 20 25 30
 Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro
 35 40 45
 Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp
 50 55 60
 Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe
 65 70 75 80
 Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser
 85 90 95
 Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp
 100 105 110
 Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met
 115 120 125
 Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp
 130 135 140
 Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe
 145 150 155 160
 Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser
 165 170 175
 His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala
 180 185 190
 Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu
 195 200 205
 Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly

210	215	220
Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser		
225	230	235 240
Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly		
	245	250 255
Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro		
	260	265 270
Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg		
	275	280 285
Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp		
	290	295 300
His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu		
305	310	315 320
His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His		
	325	330 335
Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln		
	340	345 350
Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly		
	355	360 365
Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr		
	370	375 380
Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly		
385	390	395 400
Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys		
	405	410 415
Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr		
	420	425 430
Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val		
	435	440 445
Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro		
	450	455 460
Asp Gly Met Pro Val Lys Asn		
465	470	

<210> 103

<211> 125

<212> PRT

<213> Homo sapiens

<400> 103

Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala

1	5	10	15
Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu Lys Ser His Ala	20	25	30
Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe	35	40	45
Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His	50	55	60
Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly	65	70	75
Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser	85	90	95
Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp	100	105	110
Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro	115	120	125

<210> 104

<211> 330

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (181)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (260)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 104

Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile	1	5	10	15
---	---	---	----	----

Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe
 20 25 30
 Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu
 35 40 45
 Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Pro Phe
 50 55 60
 Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val
 65 70 75 80
 Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser
 85 90 95
 Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala
 100 105 110
 Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile
 115 120 125
 Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val
 130 135 140
 Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn
 145 150 155 160
 Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val
 165 170 175
 Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met
 180 185 190
 Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser
 195 200 205
 Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val Gly Leu Ala
 210 215 220
 Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val
 225 230 235 240
 Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Trp Arg Ser
 245 250 255
 Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu
 260 265 270
 Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu
 275 280 285
 Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys
 290 295 300
 Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu
 305 310 315 320
 Gly Met Pro Ser Ser Asp Phe Thr Thr Glu

325

330

<210> 105

<211> 17

<212> PRT

<213> Homo sapiens

<400> 105

Cys Ser Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly
 1 5 10 15

Val

<210> 106

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 106

Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val
 1 5 10 15

Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln
 20 25 30

Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe
 35 40 45

Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp
 50 55 60

Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala
 65 70 75 80

Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys
 85 90

<210> 107

<211> 143

<212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (25)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 107
 Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr
 1 5 10 15
 Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr
 20 25 30
 Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu
 35 40 45
 Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val
 50 55 60
 Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val
 65 70 75 80
 Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly
 85 90 95
 Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala
 100 105 110
 Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu
 115 120 125
 Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
 130 135 140

<210> 108
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 108
 Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys
 1 5 10 15
 Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val
 20 25 30
 Pro Ser Phe Gly
 35

<210> 109
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 109

Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg
 1 5 10 15

<210> 110

<211> 10

<212> PRT

<213> Homo sapiens

<400> 110

Asp Met His Asp Phe Phe Val Gly Leu Met
 1 5 10

<210> 111

<211> 16

<212> PRT

<213> Homo sapiens

<400> 111

Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met
 1 5 10 15

<210> 112

<211> 35

<212> PRT

<213> Homo sapiens

<400> 112

Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val
 1 5 10 15

Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly
 20 25 30

Lys Ala Ala
 35

<210> 113

<211> 18

<212> PRT

<213> Homo sapiens

<400> 113

Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr
 1 5 10 15

Gly Ser

<210> 114

<211> 43
 <212> PRT
 <213> Homo sapiens

<400> 114
 Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
 1 5 10 15
 Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
 20 25 30
 Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
 35 40

<210> 115
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 115
 Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
 1 5 10 15
 Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
 20 25 30
 Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
 35 40

<210> 116
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 116
 Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly
 1 5 10 15
 Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr
 20 25 30
 Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln
 35 40 45
 Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu
 50 55 60
 Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu
 65 70 75 80
 Ile Lys Gly Phe Tyr Asp Pro Pro Arg Arg Leu Leu Gly Gln Arg Pro
 85 90 95
 Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala
 100 105 110

Gly Arg Gly Ser Met Tyr Asp Arg Met Arg Arg Gly Gly Asp Gly Tyr
 115 120 125

Asp Gly Gly Tyr Gly Gly Phe Asp Asp Tyr Gly Gly Tyr Asn Asn Tyr
 130 135 140

Gly Tyr Gly Asn Asp Gly Phe Asp Asp Arg Met Arg Asp Gly Arg Gly
 145 150 155 160

Met Gly Gly His Gly Tyr Gly Gly Ala Gly Asp Ala Ser Ser Gly Phe
 165 170 175

His Gly Gly His Phe Val His Met Arg Gly Leu Pro Phe Arg Ala Thr
 180 185 190

Glu Asn Asp Ile Ala Asn Phe Phe Ser Pro Leu Asn Pro Ile Arg Val
 195 200 205

His Ile Asp Ile Gly Ala Asp Gly Arg Ala Gln Glu Lys Gln Met
 210 215 220

<210> 117

<211> 26

<212> PRT

<213> Homo sapiens

<400> 117

Phe Thr His Ser Phe Ile Leu Glu His Ala Phe Ser Leu Leu Ile Thr
 1 5 10 15

Leu Pro Val Ser Ser Trp Ala Ala Asn Asn
 20 25

<210> 118

<211> 384

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 118

Met	Met	Ile	Gln	Trp	Asn	Gly	Pro	Lys	Thr	Ser	Ile	Ser	Glu	Lys	Ala	1	5	10	15
Arg	Gly	Leu	Xaa	Leu	Thr	Tyr	Ser	Leu	Arg	Asp	Arg	Glu	Arg	Gly	Gly	20	25	30	
Gly	Arg	Ala	Gln	Ile	Gly	Val	Val	Asp	Asp	Glu	Ala	Lys	Ala	Pro	Asp	35	40	45	
Leu	Met	Gln	Ile	Met	Glu	Ala	Val	Leu	Gly	Arg	Arg	Val	Gly	Xaa	Leu	50	55	60	
Arg	Xaa	Ala	Thr	Pro	Ser	Lys	Asp	Ile	Asn	Gln	Leu	Gln	Lys	Ala	Asn	65	70	75	80
Val	Arg	Leu	Tyr	His	Val	Tyr	Glu	Lys	Gly	Lys	Asp	Leu	Val	Val	Leu	85	90	95	
Glu	Leu	Ala	Thr	Pro	Pro	Leu	Thr	Gln	Asp	Leu	Leu	Gln	Glu	Glu	Asp	100	105	110	
Phe	Tyr	Ile	Leu	Asp	Gln	Gly	Gly	Phe	Lys	Ile	Tyr	Val	Trp	Gln	Gly	115	120	125	
Arg	Met	Ser	Ser	Leu	Gln	Glu	Arg	Lys	Ala	Ala	Phe	Ser	Arg	Ala	Val	130	135	140	
Gly	Phe	Ile	Gln	Ala	Lys	Gly	Tyr	Pro	Thr	Tyr	Thr	Asn	Val	Glu	Val	145	150	155	160
Val	Asn	Asp	Gly	Ala	Glu	Ser	Ala	Ala	Phe	Lys	Gln	Leu	Phe	Arg	Thr	165	170	175	
Trp	Ser	Glu	Lys	Arg	Arg	Arg	Asn	Gln	Lys	Xaa	Gly	Gly	Arg	Asp	Lys	180	185	190	
Ser	Ile	His	Val	Lys	Leu	Asp	Val	Gly	Lys	Leu	His	Thr	Gln	Pro	Lys	195	200	205	
Leu	Ala	Ala	Gln	Leu	Arg	Met	Val	Asp	Asp	Gly	Ser	Gly	Lys	Val	Glu	210	215	220	
Val	Trp	Cys	Ile	Gln	Asp	Leu	His	Arg	Gln	Pro	Val	Asp	Pro	Lys	Arg	225	230	235	240
His	Gly	Gln	Leu	Cys	Ala	Gly	Asn	Cys	Tyr	Leu	Val	Leu	Tyr	Thr	Tyr	245	250	255	
Gln	Arg	Leu	Gly	Arg	Val	Gln	Tyr	Ile	Leu	Tyr	Leu	Trp	Gln	Gly	His	260	265	270	
Gln	Ala	Thr	Ala	Asp	Glu	Ile	Glu	Ala	Leu	Asn	Ser	Asn	Ala	Glu	Glu	275	280	285	
Leu	Asp	Val	Met	Tyr	Gly	Gly	Val	Leu	Val	Gln	Glu	His	Val	Thr	Met				

290		295		300
Gly Ser Glu Pro Pro His Phe Leu Ala Ile Phe Gln Gly Gln Leu Val				
305		310		315 320
Ile Phe Gln Glu Arg Ala Gly His His Gly Lys Gly Gln Ser Ala Ser				
	325		330	335
Thr Thr Arg Leu Phe Gln Val Gln Gly Thr Asp Ser His Asn Thr Arg				
	340		345	350
Thr Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile				
	355		360	365
Phe Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly				
	370		375	380

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100